Essays. Catscan Columns

Bruce Sterling

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CATSCAN 1 "Midnight on the Rue Jules Verne"

A kind of SF folk tradition surrounds the founding figure of Jules Verne. Everyone knows he was a big cheese back when the modern megalopolis of SFville was a 19th-century village. There's a bronze monument to him back in the old quarter of town, the Vieux Carre. You know, the part the French built, back before there were cars.

At midnight he stands there, somewhat the worse for the acid rain and the pigeons, his blind bronze eyes fixed on a future that has long since passed him by. SFville's citizenry pass him every day without a thought, their attention fixed on their daily grind in vast American high-rises; if they look up, they are intimidated by the beard, the grasped lapel, the flaking reek of Victorian obsolescence.

Everyone here knows a little about old Jules. The submarine, the moon cannon, the ridiculously sluggish eighty days. When they strip up the tarmac, you can still see the cobbles of the streets he laid. It's all still there, really, the village grid of SFville, where Verne lived and worked and argued scientific romance with the whippersnapper H.G. Wells. Those of us who walk these mean streets, and mutter of wrecking balls and the New Jerusalem, should take the time for a look back. Way back. Let's forget old Jules for the moment. What about young Jules?

Young Jules Verne was trouble. His father, a prosperous lawyer in the provincial city of Nantes, was gifted with the sort of son that makes parents despair. The elder Verne was a reactionary Catholic, given to frequent solitary orgies with the penitential scourge. He expected the same firm moral values in his heir.

Young Jules wanted none of this. It's sometimes mentioned in the SF folktale that Jules tried to run away to sea as a lad. The story goes that he was recaptured, punished, and contritely promised to travel henceforth "only in his imagination." It sounds cute. It was nothing of the kind. The truth of the matter is that the eleven-year-old Jules resourcefully bribed a cabin-boy of his own age, and impersonated his way onto a French merchant cruiser bound for the Indies. In those days of child labor, the crew accepted Jules without hesitation. It was a mere fluke that a neighbor happened to spot Jules during his escape and informed against him. His father had to chase him down in a fast chartered steam-launch.

This evidence of mulishness seems to have thrown a scare into the Verne family, and in years to come they would treat Jules with caution. Young Jules never really broke with his parents, probably

because they were an unfailing source of funds. Young Jules didn't much hold with wasting time on day-jobs. He was convinced that he was possessed of genius, despite the near-total lack of hard evidence.

During his teens and twenties, Jules fell for unobtainable women with the regularity of clockwork. Again and again he was turned down by middle-class nymphs whose parents correctly assessed him as an art nut and spoiled ne'er-do-well.

Under the flimsy pretext of studying law, Jules managed to escape to Paris. He had seen the last of stuffy provincial France, or so he assumed: "Well," he wrote to a friend, "I'm leaving at last, as I wasn't wanted here, but one day they'll see what stuff he was made of, that poor young man they knew as Jules Verne."

The "poor young man" rented a Parisian garret with his unfailing parental stipend. He soon fell in with bad company--namely, the pop-thriller writer Alexandre Dumas Pere (author of _Count of Monte Cristo_, _The Three Musketeers_. about a million others). Jules took readily to the role of declasse' intellectual and professional student. During the Revolution of 1848 he passed out radical political pamphlets on Paris streetcorners. At night, embittered by female rejection, he wrote sarcastic sonnets on the perfidy of womankind. Until, that is, he had his first affair with an obliging housemaid, one of Dumas' legion of literary groupies. After this, young Jules loosened up to the point of moral collapse and was soon, by his own admission, a familiar figure in all the best whorehouses in Paris.

This went on for years. Young Jules busied himself writing poetry and plays. He became a kind of gofer for Dumas, devoting vast amounts of energy to a Dumas playhouse that went broke. (Dumas had no head for finance--he kept his money in a baptismal font in the entryway of his house and would stuff handfuls into his pockets whenever going out.)

A few of Jules' briefer pieces--a domestic farce, an operetta--were produced, to general critical and popular disinterest. During these misspent years Jules wrote dozens of full-length plays, most of them never produced or even published, in much the vein of would-be Hollywood scriptwriters today. Eventually, having worked his way into the theatrical infrastructure through dint of prolonged and determined hanging-out, Jules got a production job in another playhouse, for no salary to speak of. He regarded this as his big break, and crowed vastly to his family in cheerful letters that made fun of the Pope.

Jules moved in a fast circle. He started a literary-artistic group of similar souls, a clique appropriately known as the Eleven Without Women. Eventually one of the Eleven succumbed, and invited Jules to the wedding. Jules fell immediately for the bride's sister, a widow

with two small daughters. She accepted his proposal. (Given Jules' record, it is to be presumed that she took what she could get.)

Jules was now married, and his relentlessly unimaginative wife did what she could to break him to middle-class harness. Jules' new brother-ln-law was doing okay in the stock market, so Jules figured he would give it a try. He extorted a big loan from his despairing father and bought a position on the Bourse. He soon earned a reputation among his fellow brokers as a cut-up and general weird duck. He didn't manage to go broke, but a daguerreotype of the period shows his mood. The extended Verne family sits stiffly before the camera. Jules is the one in the back, his face in a clown's grimace, his arm blurred as he waves wildly in a brokerage floor "buy" signal.

Denied his longed-for position in the theater, Jules groaningly decided that he might condescend to try prose. He wrote a couple of stories heavily influenced by Poe, a big period favorite of French intellectuals. There was a cheapo publisher in town who was starting a kid's pop-science magazine called "Family Museum." Jules wrote a couple of pieces for peanuts and got cover billing. The publisher decided to try him out on books. Jules was willing. He signed a contract to do two books a year, more or less forever, in exchange for a monthly sum.

Jules, who liked hobnobbing with explorers and scientists, happened to know a local deranged techie called Nadar. Nadar's real name was Felix Tournachon, but everybody called him Nadar, for he was one of those period Gallic swashbucklers who passed through life with great swirlings of scarlet and purple and the scent of attar of roses. Nadar was involved in two breaking high-tech developments of the period: photography and ballooning. (Nadar is perhaps best remembered today as the father of aerial photography.)

Nadar had Big Ideas. Jules' real forte was geography--a date-line or a geodesic sent him into raptures--but he liked Nadar's style and knew good copy when he saw it. Jules helped out behind the scenes when Nadar launched THE GIANT, the largest balloon ever seen at the time, with a gondola the size of a two-story house, lavishly supplied with champagne. Jules never rode the thing--he had a wife and kids now--but he retired into his study with the plot-line of his first book, and drove his wife to distraction. "There are manuscripts everywhere--nothing but manuscripts," she said in a fine burst of wifely confidence. "Let's hope they don't end up under the cooking pot."

Five Weeks In A Balloon was Jules' first hit. The thing was a smash for his publisher, who sold it all over the world in lavish foreign editions for which Jules received pittances. But Jules wasn't complaining--probably because he wasn't paying attention.

With a firm toehold in the public eye, Jules soon hit his stride as

a popular author. He announced to the startled stockbrokers: "Mes enfants, I am leaving you. I have had an idea, the sort of idea that should make a man's fortune. I have just written a novel in a new form, one that's entirely my own. If it succeeds, I shall have stumbled upon a gold mine. In that case, I shall go on writing and writing without pause, while you others go on buying shares the day before they drop and selling them the day before they rise. I am leaving the Bourse. Good evening, mes enfants."

Jules Verne had invented hard science fiction. He originated the hard SF metier of off-the-rack plots and characters, combined with vast expository lumps of pop science. His innovation came from literary naivete; he never learned better or felt any reason to. (This despite Apollinaire's sniping remark: "What a style Jules Verne has, nothing but nouns.")

Verne's dialogue, considered quite snappy for the period, was derived from the stage. His characters constantly strike dramatic poses: Ned Land with harpoon upraised, Phileas Fogg reappearing stage-right in his London club at the last possible tick of the clock. The minor characters--comic Scots, Russians, Jews--are all stage dialect and glued-on beards, instantly recognizable to period readers, yet fresh because of cross-genre effects. They brought a proto- cinematic flash to readers used to the gluey, soulful character studies of, say, Stendhal.

The books we remember, the books determined people still occasionally read, are products of Verne in his thirties and forties. (His first novel was written at thirty-five.) In these early books, flashes of young Jules' student radicalism periodically surface for air, much like the Nautilus. The character of Captain Nemo, for instance, is often linked to novelistic conventions of the Byronic hero. Nemo is, in fact, a democratic terrorist of the period of '48, the year when the working-class flung up Paris barricades, and, during a few weeks of brief civil war, managed to kill off more French army officers than were lost in the entire Napoleonic campaigns. The uprising was squelched, but Jules' generation of Paris '48, like that of May '68, never truly forgot.

Jules did okay by his "new form of the novel." He eventually became quite wealthy, though not through publishing, but the theater. (Nowadays it would be movie rights, but the principle still stands.) Jules, incidently, did not write the stage versions of his own books; they were done by professional theater hacks. Jules knew the plays stank, and that they travestied his books, but they made him a fortune. The theatrical version of his mainstream smash, _Michael Strogoff_, included such lavish special effects as a live elephant on stage. It was so successful that the term "Strogoff" became contemporary Paris slang for anything wildly bravissimo.

Fortified with fame and money, Jules lunged against the traces. He travelled to America and Scandinavia, faithfully toting his notebooks. He bought three increasingly lavish yachts, and took to sea for days at a time, where he would lie on his stomach scribbling _Twenty Thousand Leagues_ against the deck.

During the height of his popularity, he collected his family and sailed his yacht to North Africa, where he had a grand time and a thrilling brush with guntoting Libyans. On the way back, he toured Italy, where the populace turned out to greet him with fireworks and speeches. In Rome, the Pope received him and praised his books because they weren't smutty. His wife, who was terrified of drowning, refused to get on the boat again, and eventually Verne sold it.

At his wife's insistence, Jules moved to the provincial town of Amiens, where she had relatives. Downstairs, Mme. Verne courted local society in drawing rooms crammed with Second Empire bric-a-brac, while Jules isolated himself upstairs in a spartan study worthy of Nemo, its wall lined with wooden cubbyholes full of carefully labeled index-cards. They slept in separate bedrooms, and rumor says Jules had a mistress in Paris, where he often vanished for weeks.

Jules' son Michel grew up to be a holy terror, visiting upon Jules all the accumulated karma of his own lack of filial piety. The teenage Michel was in trouble with cops, was confined in an asylum, was even banished onto a naval voyage. Michel ended up producing silent films, not very successfully. Jules' stepdaughters made middle-class marriages and vanished into straitlaced Catholic domesticity, where they cooked up family feuds against their scapegrace half- brother.

Verne's work is marked by an obsession with desert islands. Mysterious Isles, secret hollow volcanoes in the mid-Atlantic, vast ice-floes that crack off and head for the North Pole. Verne never really made it into the bosom of society. He did his best, and played the part whenever onstage, but one senses that he knew somehow that he was Not Like The Others and might be torn to pieces if his facade cracked. One notes his longing for the freedom of empty seas and skies, for a submarine full of books that can sink below storm level into eternal calm, for the hollow shell fired into the pristine unpeopled emptiness of circumlunar space.

From within his index-card lighthouse, the isolation began to tell on the aging Jules. He had now streamlined the production of novels to industrial assembly-work, so much so that lying gossip claimed he used a troop of ghostwriters. He could field-strip a Verne book blindfolded, with a greased slot for every part--the daffy scientist, the comic muscleman or acrobat, the ordinary Joe who asks all the wide-eyed questions, the woman who scarcely exists and is rescued from suttee or sharks or red Indians. Sometimes the machine is the hero--

the steam-driven elephant, the flying war-machine, the gigantic raft-- sometimes the geography: caverns, coal-mines, ice- floes, darkest Africa.

Bored, Jules entered politics, and joined the Amiens City Council, where he was quickly shuffled onto the cultural committee. It was a natural sinecure and he did a fair job, getting electric lights installed, widening a few streets, building a municipal theater that everyone admired and no one attended. His book sales slumped steadily. The woods were full of guys writing scientific romances by now-- people who actually knew how to write novels, like Herbert Wells. The folk-myth quotes Verne on Wells' _First Men In The Moon_: "Where is this gravity- repelling metal? Let him show it to me." If not the earliest, it is certainly the most famous exemplar of the hard-SF writer's eternal plaint against the fantasist.

The last years were painful. A deranged nephew shot Verne in the foot, crippling him; it was at this time that he wrote one of his rare late poems, the "Sonnet to Morphine." He was to have a more than nodding acquaintance with this substance, though in those days of children's teething-laudanum no one thought much of it. He died at seventy-seven in the bosom of his vigorously quarrelling family, shriven by the Church. Everyone who had forgotten about him wrote obits saying what a fine fellow he was. This is the Verne everyone thinks that they remember: the greybearded paterfamilias, the conservative Catholic hardware-nut, the guy who made technical forecasts that Really Came True if you squint real hard and ignore most of his work.

Jules Verne never knew he was "inventing science fiction," in the felicitous phrase of Peter Costello's insightful 1978 biography. He knew he was on to something hot, but he stepped onto a commercial treadmill that he didn't understand, and the money and the fame got to him. The early artistic failures, the romantic rejections, had softened him up, and when the public finally Recognized His Genius he was grateful, and fell into line with their wishes.

Jules had rejected respectability early on, when it was offered to him on a plate. But when he had earned it on his own, everyone around him swore that respectability was dandy, and he didn't dare face them down. Wanting the moon, he ended up with a hatch-battened one-man submarine in an upstairs room. Somewhere along the line his goals were lost, and he fell into a role his father might almost have picked for him: a well-to-do provincial city councilman. The garlands disguised the reins, and the streetcorner radical with a headful of visions became a dusty pillar of society.

This is not what the world calls a tragedy; nor is it any small thing to have books in print after 125 years. But the path Young Jules

blazed, and the path Old Jules was gently led down, are still well-trampled streets here in SFville. If you stand by his statue at midnight, you can still see Old Jules limping home, over the cobblestones. Or so they say.

CATSCAN 2 "The Spearhead of Cognition"

You're a kid from some podunk burg in Alabama.

From childhood you've been gnawed by vague numinous sensations and a moody sense of your own potential, but you've never pinned it down.

Then one joyful day you discover the work of a couple of writers. They're pretty well-known (for foreigners), so their books are available even in your little town. Their names are "Tolstoy" and "Dostoevsky." Reading them, you realize: This is it! It's the sign you've been waiting for! This is your destiny-- to become a *Russian Novelist*!

Fired with inspiration, you study the pair of 'em up and down, till you figure you've got a solid grasp of what they're up to. You hear they're pretty well-known back in Russia, but to your confident eye they don't seem like so much. (Luckily, thanks to some stunt of genetics, you happen to be a genius.) For you, following their outline seems simple enough--in a more sophisticated vein, of course, and for a modern audience. So you write a few such books, you publish 'em, and people adore them. The folks in 'Bama are fit to bust with pride, and say you've got Tolstoy beat all hollow.

Then, after years of steadily growing success, strange mail arrives. It's from Russia! They've been reading your stuff in translation, and you've been chosen to join the Soviet Writers' Union! Swell! you think. Of course, living in backwoods Alabama, it's been a little tough finding editions of contemporary Russian novelists. But heck, Tolstoy did his writing years ago! By now those Russians must be writing like nobody's business!

Then a shipment of modern Russian novels arrives, a scattering of various stuff that has managed to elude the redtape. You open 'em up and-- ohmiGod! It's ... it's COMMUNISM! All this stupid stereotyped garbage! About Red heroes ten feet tall, and sturdy peasants cheering about their tractors, and mothers giving sons to the Fatherland, and fathers giving sons to the Motherland ... Swallowing bile, you pore through a few more at random--oh God, it's awful.

Then the _Literary Gazette_ calls from Moscow, and asks if you'd like to make a few comments about the work of your new comrades. "Why sure!" you drawl helpfully. "It's clear as beer-piss that y'all have gotten onto the wrong track entirely! This isn't literature--this is just a lot of repetitive agitprop crap, dictated by your stupid oppressive publishers! If Tolstoy was alive today, he'd kick your numb Marxist butts! All this lame bullshit about commie heroes storming Berlin and

workers breaking production records--those are stupid power-fantasies that wouldn't fool a ten-year-old! You wanna know the true modern potential of Russian novels? Read some of my stuff, if you can do it without your lips moving! Then call me back."

And sure enough, they do call you back. But gosh--some of the hardliners in the Writers' Union have gone and drummed you out of the regiment. Called you all kinds of names ... said you're stuck-up, a tool of capitalism, a no-talent running-dog egghead. After that, you go right on writing, even criticism, sometimes. Of course, after that you start to get MEAN.

This really happened.

Except that it wasn't Tolstoy and Dostoevsky. It was H.G. Wells and Olaf Stapledon. It wasn't Russian novels, it was science fiction, and the Writers' Union was really the SFWA. And Alabama was Poland.

And you were Stanislaw Lem.

Lem was surgically excised from the bosom of American SF back in 1976. Since then plenty of other writers have quit SFWA, but those flung out for the crime of being a commie rat-bastard have remained remarkably few. Lem, of course, has continued to garner widespread acclaim, much of it from hifalutin' mainstream critics who would not be caught dead in a bookstore's skiffy section. Recently a collection of Lem's critical essays, _Macroworlds_, has appeared in paperback. For those of us not privy to the squabble these essays caused in the '70s, it makes some eye- opening reading.

Lem compares himself to Crusoe, stating (accurately) that he had to erect his entire structure of "science fiction" essentially from scratch. He did have the ancient shipwrecked hulls of Wells and Stapledon at hand, but he raided them for tools years ago. (We owe the collected essays to the beachcombing of his Man Friday, Austrian critic Franz Rottensteiner.)

These essays are the work of a lonely man. We can judge the fervor of Lem's attempt to reach out by a piece like "On the Structural Analysis of Science Fiction:" a Pole, writing in German, to an Austrian, about French semantic theory. The mind reels. After this superhuman effort to communicate, you'd think the folks would cut Lem some slack--from pure human pity, if nothing else.

But Lem's ideology--both political and literary- -is simply too threatening. The stuff Lem calls science fiction looks a bit like American SF--about the way a dolphin looks like a mosasaur. A certain amount of competitive gnawing and thrashing was inevitable. The water roiled ten years ago, and the judgement of evolution is still out. The smart money might be on Lem. The smarter money yet, on some judicious hybridization. In any case we would do well to try to

understand him.

Lem shows little interest in "fiction" per se. He's interested in science: the structure of the world. A brief autobiographical piece, "Reflections on My Life," makes it clear that Lem has been this way from the beginning. The sparkplug of his literary career was not fiction, but his father's medical texts: to little Stanislaw, a magic world of skeletons and severed brains and colorful pickled guts. Lem's earliest "writings," in high school, were not "stories," but an elaborate series of imaginary forged documents: "certificates, passports, diplomas ... coded proofs and cryptograms ..."

For Lem, science fiction is a documented form of thought-experiment: a spearhead of cognition.

All else is secondary, and it is this singleness of aim that gives his work its driving power. This is truly "a literature of ideas," dismissing the heart as trivial, but piercing the skull like an ice-pick.

Given his predilections, Lem would probably never have written "people stories." But his rationale for avoiding this is astounding. The mass slaughters during the Nazi occupation of Poland, Lem says, drove him to the literary depiction of humanity as a species. "Those days have pulverized and exploded all narrative conventions that had previously been used in literature. The unfathomable futility of human life under the sway of mass murder cannot be conveyed by literary techniques in which individuals or small groups of persons form the core of the narrative."

A horrifying statement, and one that people in happier countries would do well to ponder. The implications of this literary conviction are, of course, extreme. Lem's work is marked by unflinching extremities. He fights through ideas with all the convulsive drive of a drowning man fighting for air. Story structure, plot, human values, characterization, dramatic tension, all are ruthlessly trudgeon-kicked aside.

In criticism, however, Lem has his breath, and can examine the trampled flotsam with a cynical eye. American SF, he says, is hopelessly compromised, because its narrative structure is trash: detective stories, pulp thrillers, fairy-tales, bastardized myths. Such outworn and kitschy devices are totally unsuited to the majestic scale of science fiction's natural thematics, and reduce it to the cheap tricks of a vaudeville conjurer.

Lem holds this in contempt, for he is not a man to find entertainment in sideshow magic. Stanislaw Lem is not a good-time guy. Oddly, for a science fiction writer, he seems to have very little interest in the intrinsically weird. He shows no natural appetite for the arcane, the offbeat, the outre.. He is colorblind to fantasy. This leads him to dismiss much of the work of Borges, for example. Lem claims

that "Borges' best stories are constructed as tightly as mathematical proofs." This is a tautology of taste, for, to Lem, mathematical proofs are the conditions to which the "best" stories must necessarily aspire.

In a footnote to the Borges essay Lem makes the odd claim that "As soon as nobody assents to it, a philosophy becomes automatically fantastic literature." Lem's literature *is* philosophy; to veer from the path of reason for the sake of mere sensation is fraudulent.

American SF, therefore, is a tissue of frauds, and its practicioners fools at best, but mostly snake- oil salesmen. Lem's stern puritanism, however, leaves him at sea when it comes to the work of Philip K. Dick: "A Visionary Among the Charlatans." Lem's mind was clearly blown by reading Dick, and he struggles to find some underlying weltanschauung that would reduce Dick's ontological raving to a coherent floor-plan. It's a doomed effort, full of condescension and confusion, like a ballet-master analyzing James Brown.

Fiction is written to charm, to entertain, to enlighten, to convey cultural values, to analyze life and manners and morals and the nature of the human heart. The stuff Stanislaw Lem writes, however, is created to burn mental holes with pitiless coherent light. How can one do this and still produce a product resembling "literature?" Lem tried novels. Novels, alas, look odd without genuine characters in them. Then he hit on it: a stroke of genius.

The collections _A Perfect Vacuum_ and _Imaginary Magnitudes_ are Lem's masterworks. The first contains book reviews, the second, introductions to various learned tomes. The "books" discussed or reviewed do not actually exist, and have archly humorous titles, like "Necrobes" by "Cezary Strzybisz." But here Lem has found literary structures--not "stories"--but assemblages of prose, familiar and comfortable to the reader.

Of course, it takes a certain aridity of taste to read a book composed of "introductions," traditionally a kind of flaky appetizer before the main course. But it's worth it for the author's sense of freedom, his manifest delight in finally ridding himself of that thorny fictive thicket that stands between him and his Grail. These are charming pieces, witty, ingenious, highly thought-provoking, utterly devoid of human interest. People will be reading these for decades to come. Not because they work as fiction, but because their form follows function with the sinister elegance of an automatic rifle.

Here Lem has finessed an irrevocable choice. It is a choice every science fiction writer faces. Is the writer to write Real Novels which "only happen to be" science fiction--or create knobby and irreducible SF artifacts which are not true "stories," but visionary texts? The argument in favor of the first course is that Real Readers, i.e. mainstream ones, refuse to notice the nakedly science-fictional. How

Lem must chuckle as he collects his lavish blurbs from _Time_ and _Newsweek_ (not to mention an income ranking as one of poor wretched Poland's best sources of foreign exchange) . By disguising his work as the haute-lit exudations of a critic, he has out-conjured the Yankee conjurers, had his cake and eaten it publicly, in the hallowed pages of the _NY Review of Books_.

It's a good trick, hard to pull off, requiring ideas that burn so brilliantly that their glare is overwhelming. That ability alone is worthy of a certain writhing envy from the local Writers' Union. But it's still a trick, and the central question is still unresolved. What is "science fiction," anyway? And what's it there for?

CATSCAN 3 "Updike's Version"

John Updike has got to be the epitome of everything that SF readers love to hate. Those slim, clever, etiolated mainstream novels about well-to-do _New Yorker_ subscribers, who sip white wine and contemplate adultery ... Novels stuffed like Christmas geese with hi-falutin' literary values ... Mention Updike at a SFWA gig, and you get yawns, shudders, shakings of the head . . His work affects science fiction writers like cayenne pepper affects a pack of bloodhounds.

Why? Because John Updike has everything SF writers don't. He is, in some very real sense, everything SF writers aren't.

Certain qualities exist, that novelists are popularly supposed to possess. Gifts, abilities, that win An Author respect, that cause folks to back off and gape just a bit if they find one in a grocery line. Qualities like: insight into modern culture. A broad sympathy for the manifold quirks of human nature. A sharp eye for the defining detail. A quick ear for language. A mastery of prose.

John Updike possesses these things. He is erudite. He has, for instance, actually read Isak Dinesen, Wallace Stevens, Ciline, Jean Rhys, Gunter Grass, Nabokov and Bellow. Not only has he read these obscure and intimidating people, but he has publicly discussed the experience with every sign of genuine enjoyment.

Updike is also enormously clever, clever to a point that approaches genius through the sheer irrepressible business of its dexterity. Updike's paragraphs are so brittle, so neatly nested in their comma'ed clauses, that they seem to burst under the impact of the reader's gaze, like hyper-flaky croissants.

Updike sees how things look, notices how people dress, hears how people talk. His eye for the telling detail can make even golf and birdwatching, the ultimate yawnable whitebread Anglo pastimes, more or less interesting. (Okay--not very interesting, granted. But interesting for the sheer grace of Updike's narrative technique. Like watching Fred Astaire take out the garbage.)

It would be enlightening to compare John Updike to some paragon of science fiction writing. Unfortunately no such paladin offers himself, so we'll have to make do with a composite.

What qualities make a great science fiction writer? Let's look at it objectively, putting aside all that comfortable bullshit about the virtues authors are supposed to have. Let's look at the science fiction writer as he is.

Modern culture, for instance. Our SF paladin is not even sure it exists, except as a vaguely oppressive force he's evaded since childhood. He lives in his own one-man splinter culture, and has ever

since that crucial time in childhood--when he was sick in bed for two years, or was held captive in the Japanese prison camp, or lived in the Comoros Islands with monstrous parents who were nuts on anthropology or astronomy or Trotsky or religion.

He's pretty much okay now, though, our science fiction author. He can feed himself and sign checks, and he makes occasional supply trips into the cultural anchorage of SF fandom, where he refreshes his soul by looking at people far worse off than he is. But he dresses funny, and mumbles to himself in the grocery line.

While standing there, he doesn't listen to the other folks and make surreptitious authorly notes about dialogue. Far from it: he's too full of unholy fire to pay much attention to mere human beings. And anyway, his characters generally talk about stuff like neutrinos or Taoism.

His eyes are glazed, cut off at the optic nerve while he watches brain-movies. Too many nights in too many cheap con hotels have blunted his sense of aesthetics; his characters live in geodomes or efficiencies or yurts. They wear one-piece jumpsuits because jumpsuits make people one monotonous color from throat to foot, which allows our attention to return to the neutrinos--of which, incidentally, ninety percent of the universe consists, so that the entire visible world of matter is a mere *froth*, if we only knew.

But he's learned his craft, our science fiction paladin. The real nutcases don't have enough mental horsepower to go where he's gone. He works hard and he thinks hard and he knows what he's doing. He's read Kuttner and Kornbluth and Blish and Knight, and he knows how to Develop an Idea entertainingly and rigorously, and how to keep pages turning meanwhile, and by Christ those are no easy things. So there, Mr. John Updike with your highflown talk of aht and beautieh. That may be okay for you Ivy League pinky- lifters with your sissy bemoaning about the Crisis of Culture ... As if there was going to be a culture after the millennial advent of (Biotech) (Cybernetics) (Space Travel) (Robots) (Atomic Energy) (General Semantics) (Dean Drive) (Dianetics) ...

So--there's the difference. It exists, for better or worse. None of this is lost on John Updike. He knows about science fiction, not a hell of a lot, but probably vastly more than most science fiction writers know about John Updike. He recognizes that it requires specialized expertise to write good SF, and that there are vast rustling crowds of us on the other side of the cultural spacewarp, writing for Ace Books and _Amazing Stories_. Updike reads Vonnegut and Le Guin and Calvino and Lem and Wells and Borges, and would probably read anybody else whose prose didn't cause him physical pain. And from this reading, he knows that the worldview is different in SFville ... that

writers think literature, and that SF writers think SF.

And he knows, too, that it's not T.S. Eliot's world any more, if indeed it ever was T.S. Eliot's world. He knows we live in a world that loves to think SF, and has thought SF ever since Hiroshima, which was the ne plus ultra of Millennial Technological Advents, which really and truly did change the world forever.

So Updike has rolled up his pinstriped sleeves and bent his formidable intelligence in our direction, and lo we have a science fiction novel, _Roger's Version_ by John Updike.

Of course it's not *called* a science fiction novel. Updike has seen Le Guin and Lem and Vonnegut crawl through the spacewarp into his world. He's seen them wriggle out, somehow, barely, gasping and stinking of rocket fuel. Updike has no reason to place himself in a position they went to great pains to escape. But _Roger's Version_ does feature a computer on its cover, if not a rocketship or a babe in a bubble helmet, and by heaven it is a science fiction novel--and a very good one.

Roger's Version is Updike's version of what SF should be on about. It deals with SF's native conceptual underpinnings: the impact of technology on society. The book is about technolatry, about millennial visionary thinking. This is SF-think as examined by a classic devotee of lit-think.

It's all there, quite upfront and nakedly science fictional. It puzzles mainstream commentators. "It's as though Updike had challenged himself to convert into the flow of his novel the most resistant stuff he could think of," marvels the _Christian Science Monitor_, alarmed to find a Real Novel that actually deals straightforwardly with real ideas. "The aggressiveness of Updike's imagination is often a marvel," says _People_, a mag whose utter lack of imagination is probably its premier selling point.

And look at this list of author's credits: Fred Hoyle, Martin Gardner, Gerald Feinberg, Robert Jastrow. Don't tell me Updike's taken the *science* seriously. But he has--he's not the man to deny the devil his due, especially after writing _Witches of Eastwick_, which would have been called a fantasy novel if it had been written badly by a nobody.

But enough of this high-flown abstraction--let's get to grips with the book. There's these two guys, see. There's Roger Lambert, a middle-aged professor of theology, a white-wine-sipping adultery-contemplating intellectual New Englander who probably isn't eighty light-years removed from John Updike. Roger's a nasty piece of business, mostly, lecherous, dishonest and petty-minded, and obsessed with a kind of free- floating Hawthornian Protestant guilt that has been passed down for twenty generations up Boston way and hasn't

gotten a bit more specific in the meantime.

And then there's Roger Lambert's antagonist, Dale Kohler. Dale's a young computer hacker with pimples and an obnoxious cocksure attitude. If Dale were just a little more hip about it, he'd be a cyberpunk, but for thematic reasons Updike chose to make Dale a born-again Christian. We never really believe this, though, because Dale almost never talks Jesus. He talks AND-OR circuits, and megabytes, and Mandelbrot sets, with all the techspeak fluency Updike can manage, which is considerable. Dale talks God on a microchip, technological transcendence, and he was last seen in Greg Bear's _Blood Music_ where his name was different but his motive and character were identical. Dale is a type. Not just a science fictional type, but the type that *creates* science fiction, who talks God for the same reason Philip K. Dick talked God. Because it comes with the territory.

Oh yeah, and then we've got some women. They don't amount to much. They're not people, exactly. They're temptresses and symbols.

There's Roger Lambert's wife, Esther, for instance. Esther ends up teaching Dale Kohler the nature of sin, which utterly destroys Dale's annoying moral certitude, and high time, too. Esther does this by the simple expedient of adulterously fucking Dale's brains out, repeatedly and in meticulously related detail, until Dale collapses from sheer weight of original sin.

A good trick. But Esther breezes through this inferno of deviate carnality, none the worse for the experience; invigorated, if anything. Updike tells us an old tale in this: that women *are* sexuality, vast unplumbed cisterns of it, creatures of mystery, vamps of the carnal abyss. I just can't bring myself to go for this notion, even if the Bible tells me so. I know that women don't believe this stuff.

Then there's Roger Lambert's niece, Verna. I suspect she represents the Future, or at least the future of America. Verna's a sad case. She lives on welfare with her illegitimate mulatto kid, a little girl who is Futurity even more incarnate. Verna listens to pop music, brain-damaging volumes of it. She's cruel and stupid, and as corrupt as her limited sophistication allows. She's careless of herself and others, exults in her degradation, whores sometimes when she needs the cocaine money. During the book's crisis, she breaks her kid's leg in a reckless fit of temper.

A woman reading this portrayal would be naturally enraged, reacting under the assumption that Updike intends us to believe in Verna as an actual human being. But Verna, being a woman, isn't. Verna is America, instead: dreadfully hurt and spiritually degraded, cheapened, teasing, but full of vitality, and not without some slim hope of redemption, if she works hard and does what's best for her (as

defined by Roger Lambert). Also, Verna possesses the magic of fertility, and nourishes the future, the little girl Paula. Paula, interestingly, is every single thing that Roger Lambert isn't, i.e. young, innocent, trusting, beautiful, charming, lively, female and not white.

Roger sleeps with Verna. We've seen it coming for some time. It is, of course, an act of adultery and incest, compounded by Roger's complicity in child abuse, quite a foul thing really, and narrated with a certain gloating precision that fills one with real unease. But it's Updike's symbolic gesture of cultural rapprochement. "It's helped get me ready for death," Roger tells Verna afterward. Then: "Promise me you won't sleep with Dale." And Verna laughs at the idea, and tells him: "Dale's a non-turnon. He's not even evil, like you." And gives Roger the kiss of peace.

So, Roger wins, sort of. He is, of course, aging rapidly, and he knows his cultural values don't cut it any more, that maybe they never cut it, and in any case he is a civilized anachronism surrounded by a popcultural conspiracy of vile and rising noise. But at least *Dale* doesn't win. Dale, who lacks moral complexity and a proper grasp of the true morbidity of the human condition, thinks God can be found in a computer, and is properly nemesized for his hubris. The future may be fucked, but at least Dale won't be doing it.

So it goes, in _Roger's Version_. It's a good book, a disturbing book. It makes you think. And it's got an edge on it, a certain grimness and virulence of tone that some idiot would probably call "cyberpunk" if Updike were not writing about the midlife crisis of a theology professor.

Roger's Version is one long debate, between Updike's Protestantism and the techno-zeitgeist of the '80s. With great skill, Updike parallels the arcanity of cyberdom and the equally arcane roots of Christian theology. It's good; it's clever and funny; it verges on the profound. The far reaches of modern computer science--chaos theory, fractals, simulationism, statistical physics and so on--are indeed theological in their implications. Some of their spokesmen have a certain evangelical righteousness of tone that could only alarm a cultural arbiter like John Updike. There are indeed heretic gospels inside that machine, just like there were gospels in a tab of LSD, only more so. And it's a legitimate writerly task to inquire about those gospels and wonder if they're any better than the old one.

So John Updike has listened, listened very carefully and learned a great deal, which he parades deftly for his readership, in neatly tended flashes of hard-science exposition. And he says: I've heard it before, and I may not exactly believe in that Old Rugged Cross, but I'm damned if I'll believe these crazy hacker twerps with their jogging shoes.

There's a lot to learn from this book. It deals with the entirety of our zeitgeist with a broad-scale vision that we SF types too often fail to achieve. It's an interesting debate, though not exactly fair: it's muddied with hatred and smoldering jealousy, and a very real resentment, and a kind of self-loathing that's painful to watch.

And it's a cheat, because Dale's "science" has no real intellectual validity. When you strip away the layers of Updike's cyber-jargon, Dale's efforts are only numerology, the rankest kind of dumb superstition. "Science" it's not. It's not even good theology. It's heretic voodoo, and its pre-arranged failure within this book proves nothing about anything.

Updike is wrong. He clings to a rotting cultural fabric that he knows is based on falsehoods, and rejects challenges to that fabric by declaring "well you're another." But science, true science, does learn from mistakes; theologians like Roger Lambert merely further complicate their own mistaken premises.

I remain unconvinced, though not unmoved, by Updike's object lesson. His book has hit hard at my own thinking, which, like that of most SF writers, is overly enamored of the millennial and transcendent. I know that the twentieth century's efforts to kick Updike's Judaeo-Christian WestCiv values have been grim: Stalin's industrial terror, Cambodia's sickening Luddite madness, the convulsions today in Islam ... it was all "Year Zero" stuff, attempts to sweep the board clean, that merely swept away human sanity, instead. Nor do I claim that the squalid consumerism of today's "secular-Humanist" welfare states is a proper vision for society.

But I can't endure the sheer snobbish falseness of Updike's New England Protestantism. Never mind that it's the legacy of American letters, that it's the grand tradition of Hawthorne and Melville, that it's what made America great. It's a shuck, ladies and gentlemen. It won't wash. It doesn't own the future; it won't even kiss the future goodbye on its way to the graveyard. It doesn't own our minds any more.

We don't live in an age of answers, but an age of ferment. And today that ferment is reflected faithfully in a literature called science fiction.

SF may be crazy, it may be dangerous, it may be shallow and cocksure, and it should learn better. But in some very real way it is truer to itself, truer to the world, than is the writing of John Updike.

This is what has drawn Updike, almost despite himself, into science fiction's cultural territory. For SF writers, his novel is a lesson and a challenge. A lesson that must be learned and a challenge that must be met.

CATSCAN 4 "The Agberg Ideology"

To speak with precision about the fantastic is like loading mercury with a pitchfork. Yet some are driven to confront this challenge. On occasion, a veteran SF writer will seriously and directly discuss the craft of writing science fiction.

A few have risked doing this in cold print. Damon Knight, for instance. James Blish (under a pseudonym.) Now Robert Silverberg steps deliberately into their shoes, with _Robert Silverberg's Worlds of Wonder: Exploring the Craft of Science Fiction_ (Warner Books, 1987, $17.95).

Here are thirteen classic SF stories by well- known genre authors. Most first appeared in genre magazines during the 1950s. These are stories which impressed Silverberg mightily as he began his career. They are stories whose values he tried hard to understand and assimilate. Each story is followed by Silverberg's careful, analytical notes.

And this stuff, ladies and gents, is the SF McCoy. It's all shirtsleeve, street-level science fiction; every story in here is thoroughly crash- tested and cruises like a vintage Chevy.

Worlds of Wonder is remarkable for its sober lack of pretension. There's no high-tone guff here about how SF should claim royal descent from Lucian, or Cyrano de Bergerac, or Mary Shelley. Credit is given where credit is due. The genre's real founders were twentieth-century weirdos, whacking away at their manual typewriters, with amazing persistence and energy, for sweatshop pay.

They had a definite commonality of interest. Something more than a mere professional fraternity. Kind of like a disease.

In a long, revelatory introduction, Silverberg describes his own first exposure to the vectors of the cultural virus: SF books.

"I think I was eleven, maybe twelve ... [The] impact on me was overwhelming. I can still taste and feel the extraordinary sensations they awakened in me: it was a physiological thing, a distinct excitement, a certain metabolic quickening at the mere thought of handling them, let alone reading them. It must be like that for every new reader--apocalyptic thunderbolts and eerie unfamiliar music accompany you as you lurch and stagger, awed and shaken, into a bewildering new world of ideas and images, which is exactly the place you've been hoping to find all your life."

If this paragraph speaks to your very soul with the tongue of angels, then you need this anthology. Buy it immediately, read it carefully. It's full of home truths you won't find anywhere else.

This book is Silverberg's vicarious gift to his younger self, the

teenager described in his autobiographical introduction: an itchy, over-bright kid, filled with the feverish conviction that to become a Science Fiction Writer must surely be the moral pinnacle of the human condition.

And Silverberg knows very well that the kids are still out there, and that the virus still spreads. He can feel their hot little hands reaching out plaintively in the dark. And he's willing, with a very genuine magnanimity, to help these sufferers out. Just as he himself was helped by an earlier SF generation, by Mr. Kornbluth, and Mr. Knight, and Mr. and Mrs. Kuttner, and all those other rad folks with names full of consonants.

Silverberg explains his motives clearly, early on. Then he discusses his qualifications to teach the SF craft. He mentions his many awards, his fine reviews, his length of service in the SF field, and, especially, his success at earning a living. It's a very down-home, pragmatic argument, with an aw-shucks, workin'-guy, just-folks attitude very typical of the American SF milieu. Silverberg doesn't claim superior knowledge of writerly principle (as he might well). He doesn't openly pose as a theorist or ideologue, but as a modest craftsman, offering rules of thumb.

I certainly don't scorn this offer, but I do wonder at it. Such modesty may well seem laudable, but its unspoken implications are unsettling. It seems to show an unwillingness to tackle SF's basic roots, to establish a solid conceptual grounding. SF remains pitchforked mercury, jelly nailed to a tree; there are ways to strain a living out of this ichor, but very few solid islands of theory.

Silverberg's proffered definition of science fiction shows the gooeyness immediately. The definition is rather long, and comes in four points:

1. An underlying speculative concept, systematically developed in a way that amounts to an exploration of the consequences of allowing such a departure from known reality to impinge on the universe as we know it.

2. An awareness by the writer of the structural underpinnings (the "body of scientific knowledge") of our known reality, as it is currently understood, so that the speculative aspects of the story are founded on conscious and thoughtful departures from those underpinnings rather than on blithe ignorance.

3. Imposition by the writer of a sense of limitations somewhere in the assumptions of the story ...

4. A subliminal knowledge of the feel and texture of true science fiction, as defined in a circular and subjective way from long acquaintance with it.

SF is notoriously hard to define, and this attempt seems about as

good as anyone else's, so far. Hard thinking went into it, and it deserves attention. Yet point four is pure tautology. It is the Damon Knight dictum of "SF is what I point at when I say `SF,'" which is very true indeed. But this can't conceal deep conceptual difficulties.

Here is Silverberg defining a "Story." "A story is a machine that enlightens: a little ticking contrivance ... It is a pocket universe ... It is an exercise in vicarious experience ... It is a ritual of exorcism and purgation. It is a set of patterns and formulas. It is a verbal object, an incantation made up of rhythms and sounds."

Very fluent, very nice. But: "A science fiction story is all those things at once, and something more." Oh? What is this "something more?" And why does it take second billing to the standard functions of a generalized "story?"

How can we be certain that "SF" is not, in fact, something basically alien to "Story-telling?" "Science fiction is a branch of fantasy," Silverberg asserts, finding us a cozy spot under the sheltering tree of Literature. Yet how do we really know that SF is a "branch" at all?

The alternative would be to state that science fiction is not a true kind of "fiction" at all, but something genuinely monstrous. Something that limps and heaves and convulses, without real antecedents, in a conceptual no-man's land. Silverberg would not like to think this; but he never genuinely refutes it.

Yet there is striking evidence of it, even in _Worlds of Wonder_ itself. Silverberg refers to "antediluvian SF magazines, such as _Science_ Wonder Stories from 1929 and _Amazing Stories_ from 1932 . . . The primitive technique of many of the authors didn't include such frills as the ability to create characters or write dialogue ... [T]he editors of the early science fiction magazines had found it necessary to rely on hobbyists with humpty-dumpty narrative skills; the true storytellers were off writing for the other pulp magazines, knocking out westerns or adventure tales with half the effort for twice the pay."

A nicely dismissive turn of phrase. But notice how we confront, even in very early genre history, two distinct castes of writer. We have the "real storytellers," pulling down heavy bread writing westerns, and "humpty-dumpty hobbyists" writing this weird-ass stuff that doesn't even have real dialogue in it. A further impudent question suggests itself: if these "storytellers" were so "real," how come they're not still writing successfully today for _Argosy_ and _Spicy Stories_ and _Aryan Atrocity Adventure_? How come, among the former plethora of pulp fiction magazines, the science fiction zines still survive? Did the "storytellers" somehow ride in off the range to rescue Humpty Dumpty? If so, why couldn't they protect their own herd?

What does "science fiction" really owe to "fiction," anyway? This

conceptual difficulty will simply not go away, ladies and gentlemen. It is a cognitive dissonance at the heart of our genre. Here is John Kessel, suffering the ideological itch, Eighties version, in _SF Eye_ #1:

"Plot, character and style are not mere icing . . . Any fiction that conceives of itself as a vehicle for something called `ideas' that can be inserted into and taken out of the story like a passenger in a Toyota is doomed, in my perhaps staid and outmoded opinion, to a very low level of achievement."

A "low level of achievement." Not even Humpty Dumpty really wants this. But what is the "passenger," and what are the "frills?" Is it the "storytelling," or is it the "something more?" Kessel hits a nerve when he demands, "What do you mean by an `idea' anyway?" What a difficult question this is!

The craft of storytelling has been explored for many centuries, in many cultures. Blish called it "a huge body of available technique," and angrily demanded its full use within SF. And in _Worlds of Wonder_, Silverberg does his level best lo convey the basic mechanics. Definitions fly, helpful hints abound. A story is "the working out of a conflict." A story "has to be built around a pattern of oppositions." Storytelling can be summed up in a three-word formula: "purpose, passion, perception." And on and on.

But where are we to find the craft of the "something more"? What in hell *is* the "something more"? "Ideas" hardly begins to describe it. Is it "wonder"? Is it "transcendence"? Is it "visionary drive," or "conceptual novelty," or even "cosmic fear"? Here is Silverberg, at the very end of his book:

"It was that exhilaration and excitement that drew us to science fiction in the first place, almost invariably when we were very young; it was for the sake of that exhilaration and excitement that we took up the writing of it, and it was to facilitate the expression of our visions and fantasies that we devoted ourselves with such zeal to the study of the art and craft of writing."

Very well put, but the dichotomy lurches up again. The art and craft of writing *what*, exactly? In this paragraph, the "visions and fantasies" briefly seize the driver's seat of the Kessel Toyota. But they soon dissipate into phantoms again. Because they are so ill-defined, so mercurial, so desperately lacking in basic conceptual soundness. They are our stock in trade, our raison d'etre, and we still don't know what to make of them.

Worlds of Wonder may well be the best book ever published about the craft of science fiction. Silverberg works nobly, and he deserves great credit. The unspoken pain that lies beneath the surface of his book is something with which the genre has never successfully come to terms. The argument is as fresh today as it was in the days of

Science Wonder Stories.

This conflict goes very deep indeed. It is not a problem confined to the craft of writing SF. It seems to me to be a schism of the modern Western mindset, a basic lack of cultural integration between what we feel, and what we know. It is an inability to speak naturally, with conviction from the heart, of the things that Western rationality has taught us. This is a profound problem, and the fact that science fiction deals with it so directly, is a sign of science fiction's cultural importance.

We have no guarantee that this conflict will *ever* be resolved. It may not be resolvable. SF writers have begun careers, succeeded greatly, grown old and honored, and died in the shadow of this dissonance. We may forever have SF "stories" whose narrative structure is buboed with expository lumps. We may always have escapist pulp adventures that avoid true imagination, substituting the bogus exoticism that Blish defined as "calling a rabbit a `smeerp.'"

We may even have beautifully written, deeply moving tales of classic human conflict--with only a reluctant dab of genre flavor. Or we may have the opposite: the legacy of Stapledon, Gernsback, and Lem, those non-stories bereft of emotional impact and human interest, the constructions Silverberg rightly calls "vignettes" and "reports."

I don't see any stories in _Worlds of Wonder_ that resolve this dichotomy. They're swell stories, and they deliver the genre payoff in full. But many of them contradict Silverberg's most basic assertions about "storytelling." "Four in One" by Damon Knight is a political parable whose hero is a rock-ribbed Competent Man whose reactions are utterly nonhuman. "Fondly Fahrenheit" by Alfred Bester is a one-shot tour-de-force dependent on weird grammatical manipulation. "Hothouse" by Brian Aldiss is a visionary picaresque with almost no conventional structure. "The New Prime" by Jack Vance is six jampacked alien vignettes very loosely stitched together. "Day Million" showcases Frederik Pohl bluntly haranguing his readers. It's as if Silverberg picked these stories deliberately to demonstrate a deep distrust of his own advice.

But to learn to tell "good stories" is excellent advice for any kind of writer, isn't it? Well- constructed "stories" will certainly sell in science fiction. They will win awards, and bring whatever fame and wealth is locally available. Silverberg knows this is true. His own career proves it. His work possesses great technical facility. He writes stories with compelling opening hooks, with no extraneous detail, with paragraphs that mesh, with dialogue that advances the plot, with neatly balanced beginnings, middles and ends.

And yet, this ability has not been a total Royal Road to success for him. Tactfully perhaps, but rather surprisingly, _Worlds of Wonder_

does not mention Silverberg's four-year "retirement" from SF during the '70s. For those who missed it, there was a dust-up in 1976, when Silverberg publicly complained that his work in SF was not garnering the critical acclaim that its manifest virtues deserved. These were the days of _Dying Inside_, _The Book of Skulls_, _Shadrach in the Furnace_--sophisticated novels with deep, intense character studies, of unimpeachable literary merit. Silverberg was not alone in his conclusion that these groundbreaking works were pearls cast before swine. Those who shared Silverberg's literary convictions could only regard the tepid response of the SF public as philistinism.

But was it really? Critics still complain at him today; take Geoff Ryman's review of _The Conglomeroid Cocktail Party_, a recent Silverberg collection, in _Foundation_ 37. "He is determined to write beautifully and does ... He has most of the field beaten by an Olympic mile." And yet: "As practiced by Silverberg, SF is a minor art form, like some kinds of verse, to be admired for its surface polish and adherence to form."

This critical plaint is a symptom of hunger for the "something more." But where are we to find its mercurial secrets? Not in the storytelling alembics of _Worlds of Wonder_.

Why, then, is Silverberg's book so very valuable to the SF writer of ambition? There are many reasons. Silverberg's candid reminiscences casts vital light into the social history of the genre. The deep structures of our subculture, of our traditions, must be understood by anyone who wants to transcend them. To have no "ideology," no theory of SF and its larger purposes, is to be the unknowing puppet of its unwritten rules. These invisible traditions are actually only older theories, now disguised as common sense.

The same goes for traditional story values. Blatant solecisms are the Achilles heel of the wild- eyed SF visionary. If this collection teaches anything, it's that one can pull the weirdest, wackiest, off-the-wall moves in SF, and still win big. But one must do this deliberately, with a real understanding of thee consequences. One must learn to recognize, and avoid, the elementary blunders of bad fiction: the saidbookisms, the point-of-view violations, the careless lapses of logic, the pointless digressions, the idiot plots, the insulting cliches of character. _Worlds of Wonder_ is a handbook for accomplishing that. It's kindly and avuncular and accessible and fun to read.

And some readers are in special luck. You may be one of them. You may be a young Robert Silverberg, a mindblown, too-smart kid, dying to do to the innocent what past SF writers have done to you. You may be boiling over with the Holy Spirit, yet wondering how you will ever find the knack, the discipline, to put your thoughts into a form that compels attention from an audience, a form that will break

you into print. If you are this person, _Worlds of Wonder_ is a precious gift. It is your battle plan.

CATSCAN 5 "Slipstream"

In a recent remarkable interview in _New Pathways_ #11, Carter Scholz alludes with pained resignation to the ongoing brain-death of science fiction. In the 60s and 70s, Scholz opines, SF had a chance to become a worthy literature; now that chance has passed. Why? Because other writers have now learned to adapt SF's best techniques to their own ends.

"And," says Scholz, "They make us look sick. When I think of the best `speculative fiction' of the past few years, I sure don't think of any Hugo or Nebula winners. I think of Margaret Atwood's _The Handmaid's Tale_, and of Don DeLillo's _White Noise_, and of Batchelor's _The Birth of the People's Republic of Antarctica_, and of Gaddis' _JR_ and _Carpenter's Gothic_, and of Coetzee's _Life and Times of Michael K_ ... I have no hope at all that genre science fiction can ever again have any literary significance. But that's okay, because now there are other people doing our job."

It's hard to stop quoting this interview. All interviews should be this good. There's some great campy guff about the agonizing pain it takes to write short stories; and a lecture on the unspeakable horror of writer's block; and some nifty fusillades of forthright personal abuse; and a lot of other stuff that is making _New Pathways_ one of the most interesting zines of the Eighties. Scholz even reveals his use of the Fibonacci Sequence in setting the length and number of the chapters in his novel _Palimpsests_, and wonders how come nobody caught on to this groundbreaking technique of his.

Maybe some of this peripheral stuff kinda dulls the lucid gleam of his argument. But you don't have to be a medieval Italian mathematician to smell the reek of decay in modern SF. Scholz is right. The job isn't being done here.

"Science Fiction" today is a lot like the contemporary Soviet Union; the sprawling possessor of a dream that failed. Science fiction's official dogma, which almost everybody ignores, is based on attitudes toward science and technology which are bankrupt and increasingly divorced from any kind of reality. "Hard- SF," the genre's ideological core, is a joke today; in terms of the social realities of high-tech post-industrialism, it's about as relevant as hard- Leninism.

Many of the best new SF writers seem openly ashamed of their backward Skiffy nationality. "Ask not what you can do for science fiction--ask how you can edge away from it and still get paid there."

A blithely stateless cosmopolitanism is the order of the day, even for an accredited Clarion grad like Pat Murphy: "I'm not going to bother what camp things fall into," she declares in a recent _Locus_

interview. "I'm going to write the book I want and see what happens ... If the markets run together, I leave it to the critics." For Murphy, genre is a dead issue, and she serenely wills the trash-mountain to come to Mohammed.

And one has to sympathize. At one time, in its clumsy way, Science Fiction offered some kind of coherent social vision. SF may have been gaudy and naive, and possessed by half-baked fantasies of power and wish-fulfillment, but at least SF spoke a contemporary language. Science Fiction did the job of describing, in some eldritch way, what was actually *happening*, at least in the popular imagination. Maybe it wasn't for everybody, but if you were a bright, unfastidious sort, you could read SF and feel, in some satisfying and deeply unconscious way, that you'd been given a real grip on the chrome-plated handles of the Atomic Age.

But *now* look at it. Consider the repulsive ghastliness of the SF category's Lovecraftian inbreeding. People retched in the 60s when De Camp and Carter skinned the corpse of Robert E. Howard for its hide and tallow, but nowadays necrophilia is run on an industrial basis. Shared-world anthologies. Braided meganovels. Role-playing tie-ins. Sharecropping books written by pip-squeaks under the blazoned name of established authors. Sequels of sequels, trilogy sequels of yet-earlier trilogies, themselves cut-and- pasted from yet-earlier trilogies. What's the common thread here? The belittlement of individual creativity, and the triumph of anonymous product. It's like some Barthesian nightmare of the Death of the Author and his replacement by "text."

Science Fiction--much like that other former Vanguard of Progressive Mankind, the Communist Party-- has lost touch with its cultural reasons for being. Instead, SF has become a self-perpetuating commercial power-structure, which happens to be in possession of a traditional national territory: a portion of bookstore rackspace.

Science fiction habitually ignores any challenge from outside. It is protected by the Iron Curtain of category marketing. It does not even have to improve "on its own terms," because its own terms no longer mean anything; they are rarely even seriously discussed. It is enough merely to point at the rackspace and say "SF."

Some people think it's great to have a genre which has no inner identity, merely a locale where it's sold. In theory, this grants vast authorial freedom, but the longterm practical effect has been heavily debilitating. When "anything is possible in SF" then "anything" seems good enough to pass muster. Why innovate? Innovate in what direction? Nothing is moving, the compass is dead. Everything is becalmed; toss a chip overboard to test the current, and it sits there till it sinks without a trace.

It's time to clarify some terms in this essay, terms which I owe to

Carter Scholz. "Category" is a marketing term, denoting rackspace. "Genre" is a spectrum of work united by an inner identity, a coherent esthetic, a set of conceptual guidelines, an ideology if you will.

"Category" is commercially useful, but can be ultimately deadening. "Genre," however, is powerful.

Having made this distinction, I want to describe what seems to me to be a new, emergent "genre," which has not yet become a "category."

This genre is not "category" SF; it is not even "genre" SF. Instead, it is a contemporary kind of writing which has set its face against consensus reality. It is a fantastic, surreal sometimes, speculative on occasion, but not rigorously so. It does not aim to provoke a "sense of wonder" or to systematically extrapolate in the manner of classic science fiction.

Instead, this is a kind of writing which simply makes you feel very strange; the way that living in the late twentieth century makes you feel, if you are a person of a certain sensibility. We could call this kind of fiction Novels of Postmodern Sensibility, but that looks pretty bad on a category rack, and requires an acronym besides; so for the sake of convenience and argument, we will call these books "slipstream."

"Slipstream" is not all that catchy a term, and if this young genre ever becomes an actual category I doubt it will use that name, which I just coined along with my friend Richard Dorsett. "Slipstream" is a parody of "mainstream," and nobody calls mainstream "mainstream" except for us skiffy trolls.

Nor is it at all likely that slipstream will actually become a full-fledged genre, much less a commercially successful category. The odds against it are stiff. Slipstream authors must work outside the cozy infrastructure of genre magazines, specialized genre criticism, and the authorial esprit-de-corps of a common genre cause.

And vast dim marketing forces militate against the commercial success of slipstream. It is very difficult for these books to reach or build their own native audience, because they are needles in a vast moldering haystack. There is no convenient way for would-be slipstream readers to move naturally from one such work to another of its ilk. These books vanish like drops of ink in a bucket of drool.

Occasional writers will triumph against all these odds, but their success remains limited by the present category structures. They may eke out a fringe following, but they fall between two stools. Their work is too weird for Joe and Jane Normal. And they lose the SF readers, who avoid the mainstream racks because the stuff there ain't half weird enough. (One result of this is that many slipstream books are left- handed works by authors safely established in other genres.)

And it may well be argued that slipstream has no "real" genre identity at all. Slipstream might seem to be an artificial construct, a mere grab-bag of mainstream books that happen to hold some interest for SF readers. I happen to believe that slipstream books have at least as much genre identity as the variegated stock that passes for "science fiction" these days, but I admit the force of the argument. As an SF critic, I may well be blindered by my parochial point- of-view. But I'm far from alone in this situation. Once the notion of slipstream is vaguely explained, almost all SF readers can recite a quick list of books that belong there by right.

These are books which SF readers recommend to friends: "This isn't SF, but it sure ain't mainstream and I think you might like it, okay?" It's every man his own marketer, when it comes to slipstream.

In preparation for this essay, I began collecting these private lists. My master-list soon grew impressively large, and serves as the best pragmatic evidence for the actual existence of slipstream that I can offer at the moment.

I myself don't pretend to be an expert in this kind of writing. I can try to define the zeitgeist of slipstream in greater detail, but my efforts must be halting.

It seems to me that the heart of slipstream is an attitude of peculiar aggression against "reality." These are fantasies of a kind, but not fantasies which are "futuristic" or "beyond the fields we know." These books tend to sarcastically tear at the structure of "everyday life."

Some such books, the most "mainstream" ones, are non-realistic literary fictions which avoid or ignore SF genre conventions. But hard-core slipstream has unique darker elements. Quite commonly these works don't make a lot of common sense, and what's more they often somehow imply that *nothing we know makes* "a lot of sense" and perhaps even that *nothing ever could*.

It's very common for slipstream books to screw around with the representational conventions of fiction, pulling annoying little stunts that suggest that the picture is leaking from the frame and may get all over the reader's feet. A few such techniques are infinite regress, trompe-l'oeil effects, metalepsis, sharp violations of viewpoint limits, bizarrely blase' reactions to horrifically unnatural events ... all the way out to concrete poetry and the deliberate use of gibberish. Think M. C. Escher, and you have a graphic equivalent.

Slipstream is also marked by a cavalier attitude toward "material" which is the polar opposite of the hard-SF writer's "respect for scientific fact." Frequently, historical figures are used in slipstream fiction in ways which outrageously violate the historical record. History, journalism, official statements, advertising copy ... all of these

are grist for the slipstream mill, and are disrespectfully treated not as "real-life facts" but as "stuff," raw material for collage work. Slipstream tends, not to "create" new worlds, but to *quote* them, chop them up out of context, and turn them against themselves.

Some slipstream books are quite conventional in narrative structure, but nevertheless use their fantastic elements in a way that suggests that they are somehow *integral* to the author's worldview; not neat-o ideas to kick around for fun's sake, but something in the nature of an inherent dementia. These are fantastic elements which are not clearcut "departures from known reality" but ontologically *part of the whole mess*; "`real' compared to what?" This is an increasingly difficult question to answer in the videocratic 80s-90s, and is perhaps the most genuinely innovative aspect of slipstream (scary as that might seem).

A "slipstream critic," should such a person ever come to exist, would probably disagree with these statements of mine, or consider them peripheral to what his genre "really" does. I heartily encourage would-be slipstream critics to involve themselves in heady feuding about the "real nature" of their as-yet- nonexistent genre. Bogus self-referentiality is a very slipstreamish pursuit; much like this paragraph itself, actually. See what I mean?

My list is fragmentary. What's worse, many of the books that are present probably don't "belong" there. (I also encourage slipstream critics to weed these books out and give convincing reasons for it.) Furthermore, many of these books are simply unavailable, without hard work, lucky accidents, massive libraries, or friendly bookstore clerks in a major postindustrial city. In many unhappy cases, I doubt that the authors themselves think that anyone is interested in their work. Many slipstream books fell through the yawning cracks between categories, and were remaindered with frantic haste.

And I don't claim that all these books are "good," or that you will enjoy reading them. Many slipstream books are in fact dreadful, though they are dreadful in a different way than dreadful science fiction is. This list happens to be prejudiced toward work of quality, because these are books which have stuck in people's memory against all odds, and become little tokens of possibility.

I offer this list as a public service to slipstream's authors and readers. I don't count myself in these ranks. I enjoy some slipstream, but much of it is simply not to my taste. This doesn't mean that it is "bad," merely that it is different. In my opinion, this work is definitely not SF, and is essentially alien to what I consider SF's intrinsic virtues.

Slipstream does however have its own virtues, virtues which may be uniquely suited to the perverse, convoluted, and skeptical tenor of the postmodern era. Or then again, maybe not. But to judge this genre

by the standards of SF is unfair; I would like to see it free to evolve its own standards.

Unlike the "speculative fiction" of the 60s, slipstream is not an internal attempt to reform SF in the direction of "literature." Many slipstream authors, especially the most prominent ones, know or care little or nothing about SF. Some few are "SF authors" by default, and must struggle to survive in a genre which militates against the peculiar virtues of their own writing.

I wish slipstream well. I wish it was an acknowledged genre and a workable category, because then it could offer some helpful, brisk competition to SF, and force "Science Fiction" to redefine and revitalize its own principles.

But any true discussion of slipstream's genre principles is moot, until it becomes a category as well. For slipstream to develop and nourish, it must become openly and easily available to its own committed readership, in the same way that SF is today. This problem I willingly leave to some inventive bookseller, who is openminded enough to restructure the rackspace and give these oppressed books a breath of freedom.

THE SLIPSTREAM LIST

ACKER, KATHY - Empire of the Senseless

ACKROYD, PETER - Hawksmoor; Chatterton

ALDISS, BRIAN - Life in the West

ALLENDE, ISABEL - Of Love and Shadows; House of Spirits

AMIS, KINGSLEY - The Alienation; The Green Man

AMIS, MARTIN - Other People; Einstein's Monsters

APPLE, MAX - Zap; The Oranging of America

ATWOOD, MARGARET - The Handmaids Tale

AUSTER, PAUL - City of Glass; In the Country of Last Things

BALLARD, J. G. - Day of Creation; Empire of the Sun

BANKS, IAIN - The Wasp Factory; The Bridge

BANVILLE, JOHN - Kepler; Dr. Copernicus

BARNES, JULIAN - Staring at the Sun

BARTH, JOHN - Giles Goat-Boy; Chimera

BARTHELME, DONALD - The Dead Father

BATCHELOR, JOHN CALVIN - Birth of the People's Republic of Antarctica

BELL, MADISON SMARTT - Waiting for the End of the World

BERGER, THOMAS - Arthur Rex

BONTLY, THOMAS - Celestial Chess

BOYLE, T. CORAGHESSAN - Worlds End; Water Music

BRANDAO, IGNACIO - And Still the Earth

BURROUGHS, WILLIAM - Place of Dead Roads; Naked Lunch; Soft Machine; etc.

CARROLL, JONATHAN - Bones of the Moon; Land of Laughs
CARTER, ANGELA - Nights at the Circus; Heroes and Villains
CARY, PETER - Illywhacker; Oscar and Lucinda
CHESBRO, GEORGE M. - An Affair of Sorcerers
COETZEE, J. M. - Life and rimes of Michael K.
COOVER, ROBERT - The Public Burning; Pricksongs & Descants
CRACE, JIM - Continent
CROWLEY, JOHN - Little Big; Aegypt
DAVENPORT, GUY - Da Vincis Bicycle; The Jules Verne Steam Balloon
DISCH, THOMAS M. - On Wings of Song
DODGE, JIM - Not Fade Away
DURRELL, LAWRENCE - Tunc; Nunquam
ELY, DAVID - Seconds
ERICKSON, STEVE - Days Between Stations; Rubicon Beach
FEDERMAN, RAYMOND - The Twofold Variations
FOWLES, JOHN - A Maggot
FRANZEN, JONATHAN - The Twenty-Seventh City
FRISCH, MAX - Homo Faber; Man in the Holocene
FUENTES, CARLOS - Terra Nostra
GADDIS, WILLIAM - JR; Carpenters Gothic
GARDNER, JOHN - Grendel; Freddy's Book
GEARY, PATRICIA - Strange Toys; Living in Ether
GOLDMAN, WILLIAM - The Princess Bride; The Color of Light
GRASS, GUNTER - The Tin Drum
GRAY, ALASDAIR - Lanark
GRIMWOOD, KEN - Replay
HARBINSON, W. A. - Genesis; Revelation; Otherworld
HILL, CAROLYN - The Eleven Million Mile High Dancer
HJVRTSBERG, WILLIAM - Gray Matters; Falling Angel
HOBAN, RUSSELL - Riddley Walker
HOYT, RICHARD - The Manna Enzyme
IRWIN, ROBERT - The Arabian Nightmares
ISKANDER, FAZIL - Sandro of Chegam; The Gospel According to Sandro
JOHNSON, DENIS - Fiskadoro
JONES, ROBERT F. - Blood Sport; The Diamond Bogo
KINSELLA, W. P. - Shoeless Joe
KOSTER, R. M. - The Dissertation; Mandragon
KOTZWINKLE, WILLIAM - Elephant Bangs Train; Doctor Rat, Fata Morgana
KRAMER, KATHRYN - A Handbook for Visitors From Outer Space
LANGE, OLIVER - Vandenberg
LEONARD, ELMORE - Touch

LESSING, DORIS - The Four-Gated City; The Fifth Child of Satan
LEVEN, JEREMY - Satan
MAILER, NORMAN - Ancient Evenings
MARINIS, RICK - A Lovely Monster
MARQUEZ, GABRIEL GARCIA - Autumn of the Patriarch; One Hundred Years of Solitude
MATHEWS, HARRY - The Sinking of the Odradek Stadium
McEWAN, IAN - The Comfort of Strangers; The Child in Time
McMAHON, THOMAS - Loving Little Egypt
MILLAR, MARTIN - Milk, Sulphate and Alby Starvation
MOONEY, TED - Easy Travel to Other Planets
MOORCOCK, MICHAEL - Laughter of Carthage; Byzantium Endures; Mother London
MOORE, BRIAN - Cold Heaven
MORRELL, DAVID - The Totem
MORRISON, TONI - Beloved; The Song of Solomon
NUNN, KEN - Tapping the Source; Unassigned Territory
PERCY, WALKER - Love in the Ruins; The Thanatos Syndrome
PIERCY, MARGE - Woman on the Edge of Time
PORTIS, CHARLES - Masters of Atlantis
PRIEST, CHRISTOPHER - The Glamour; The Affirmation
PROSE, FRANCINE - Bigfoot Dreams, Marie Laveau
PYNCHON, THOMAS - Gravity's Rainbow; V; The Crying of Lot 49
REED, ISHMAEL - Mumbo Jumbo; The Terrible Twos
RICE, ANNE - The Vampire Lestat; Queen of the Damned
ROBBINS, TOM - Jitterbug Perfume; Another Roadside Attraction
ROTH, PHILIP - The Counterlife
RUSHDIE, SALMON - Midnight's Children; Grimus; The Satanic Verses
SAINT, H. F. - Memoirs of an Invisible Man
SCHOLZ, CARTER & HARCOURT GLENN - Palimpsests
SHEPARD, LUCIUS - Life During Wartime
SIDDONS, ANNE RIVERS - The House Next Door
SPARK, MURIEL - The Hothouse by the East River
SPENCER, SCOTT - Last Night at the Brain Thieves Ball
SUKENICK, RONALD - Up; Down; Out
SUSKIND, PATRICK - Perfume
THEROUX, PAUL - O-Zone
THOMAS, D. M. - The White Hotel
THOMPSON, JOYCE - The Blue Chair; Conscience Place
THOMSON, RUPERT - Dreams of Leaving
THORNBERG, NEWTON - Valhalla
THORNTON, LAWRENCE - Imagining Argentina
UPDIKE, JOHN - Witches of Eastwick; Rogers Version

VLIET, R. G. - Scorpio Rising
VOLLMAN, WILLIAM T. - You Bright and Risen Angels
VONNEGUT, KURT - Galapagos; Slaughterhouse-Five
WALLACE, DAVID FOSTER - The Broom of the System
WEBB, DON - Uncle Ovid's Exercise Book
WHITTEMORE, EDWARD - Nile Shadows; Jerusalem Poker; Sinai Tapestry
WILLARD, NANCY - Things Invisible to See
WOMACK, JACK - Ambient; Terraplane
WOOD, BARI - The Killing Gift
WRIGHT, STEPHEN - M31: A Family Romance

CATSCAN 6 "Shinkansen"

Let me tell you what the 21st Century feels like.

Imagine yourself at an international conference of industrial designers in Nagoya, Japan. You're not an industrial designer yourself, and you're not quite sure what you're doing there, but presumably some wealthy civic- minded group of Nagoyans thought you might have entertainment value, so they flew you in. You're in a cavernous laser-lit auditorium with 3,000 assorted Japanese, Finns, Germans, Americans, Yugoslavs, Italians, et al., all wearing identical ID badges, except for a trenchant minority, who have scribbled "Allons Nagoya" on their badges so that everybody will know they're French.

There's a curved foam plug stuck in your ear with a thin gray cord leading to a black plastic gadget the size of a deck of cards. This is an "ICR- 6000 Conference Receiver." It's a five-channel short-range radio, with a blurry typed serial number stuck to it with a strip of Scotch Tape. You got the receiver from a table manned by polite young hostesses, who were passing out vast heaps of these items, like party favors. Of the five channels offered, Number 1 is Japanese and Number 2 is, purportedly, English. You get the strong impression that the French would have preferred Number 3 to be French, but the Conference offers only two "official languages" and channels 3, 4 and 5 have static.

Muted festivities begin, in the best of taste. First a brief Kabuki skit is offered, by two expatriate Canadians, dressed in traditional robes. Ardent students of the Kabuki form, the two Canadians execute ritual moves of exacting precision, accompanied by bizarre and highly stylized verbal bellowing. They are, however, speaking not Japanese but English. After some confusion you realize that this piece, "The Inherited Cramp," is meant to be a comic performance. Weak culture-shocked chuckles arise here and there from the more adventurous members of the audience. Toward the end you feel that you might get used to this kind of thing if you saw enough of it.

The performance ends to the warm applause of general relief. Assorted bigwigs take the stage: a master of ceremonies, the keynote speaker, the Mayor of Nagoya, the Speaker of the City Council, the Governor of the Prefecture. And then, accompanied by a silverhaired retainer of impressive stolid dignity, comes the Crown Prince of Japan.

Opening ceremonies of this kind are among the many obligations of this patient and graceful young aristocrat. The Crown Prince wears a truly immaculate suit which, at an impolite guess, probably costs as much as a small car. As a political entity, this symbolic personage is

surrounded by twin bureaucracies of publicity and security. The security is not immediately evident. Only later will you discover that the entire building has been carefully sealed by unobtrusive teams of police. On another day, you will witness the passage of the Prince's motorcade, his spotless armored black limousine sporting the national flag, accompanied by three other limos of courtier-bodyguards, two large squads of motorcycle policemen, half-a- dozen police black-and-whites, and a chuttering surveillance helicopter. As you stand gawking on the sidewalk you will be questioned briefly, in a friendly fashion, by a plainclothes policeman who eyes the suspicious bag you carry with a professional interest.

At the moment, however, you are listening to the speeches of the Nagoya politicians. The Prince, his posture impeccable, is also listening, or at least pretending it with a perfect replica of attention. You listen to the hesitant English on Channel Two with growing amazement. Never have you heard political speeches of such utter and consummate vacuity. They consist entirely of benevolent cliche'. Not a ripple of partisan fervor, not a hint of ideological intent, colors the translated oratory. Even the most vapid American, or even Russian, politician cannot resist a dig at a rival, or an in- crowd reference to some partisan bit of political-correctness--but this is a ritual of a different order. It dawns on you that nothing will be said. These political worthies, sponsors and financiers of the event, are there to color the air with harmless verbal perfume. "You're here, we're here"--everything that actually needs to be said has already been communicated nonverbally.

The Prince rises to deliver a brief invocation of even more elevated and poetic meaninglessness. As he steps to the podium, a torrent of flashbulbs drenches the stage in stinging electrical white. The Prince, surely blinded, studies a line of his text. He lifts his chin, recites it, and is blinded again by the flashes. He looks back to the speech, recites a paragraph in a firm voice with his head lowered, then looks up again, stoically. Again that staccato blast of glare. It dawns on you that this is the daily nature of this young gentleman's existence. He dwells within a triple bell-jar of hypermediated publicity, aristocratic decorum, and paramilitary paranoia. You reflect with a mingled respect and pity on the numerous rare personages around the planet who share his unenviable predicament. Later you will be offered a chance to meet the Prince in a formal reception line, and will go out of your way to spare him the minor burden of your presence. It seems the least you can do.

Back in your hotel room, the vapid and low-key Japanese TV is interrupted by news of a severe California earthquake. By morning swarms of well-equipped Japanese media journalists will be doing

stand-ups before cracked bridges in San Furansisko and Okran. Distressed Californian natives are interviewed with an unmistakable human warmth and sympathy. Japanese banks offer relief money. Medical supplies are flown in. No particular big deal is made of these acts of charitable solidarity. It's an earthquake; it's what one does.

You leave Nagoya and take the Shinkansen bullet-train back to Tokyo. It's a very nice train, the Shinkansen, but it's not from Mars or anything. There's been a lot of press about the Shinkansen, but it looks harmless enough, rather quaint actually, somewhat Art Deco with lots of brushed aircraft aluminum and stereo ads featuring American popstars. It's very clean, but like all trains it gets too cold inside and then it gets too hot. You've heard that bullet-trains can do 200 miles an hour but there's no way the thing tops 130 or so, while you're aboard it. You drink a ten percent carbonated peach soda and listen to your Walkman. The people inside this purported technical marvel demonstrate the absolute indifference of long habit.

A friend meets you in Tokyo. You board a commuter subway at rush- hour. It is like an extremely crowded rolling elevator. Everyone hangs limply from straps with inert expressions suggesting deep meditation or light hypnosis. Impetus rolls through the tightly-packed bodies like currents through a thick stand of kelp. It occurs to you that this is the first time you have been in Japan without attracting vaguely curious glances as a foreigner. Nobody is looking at anybody. Were any physical threat or commotion offered on this subway, the situation would swiftly be nightmarish. But since nobody stirs, the experience is actually oddly soothing.

You have a dinner appointment with a Japanese rock band. You meet in a restaurant in a section of Tokyo somewhat akin to, say, Greenwich Village in 1955. Its narrow, crooked streets are full of students, courting couples, coffee-shops. There's a bit of graffiti here and there--not the lashing, crazed graffiti of American urban areas, but enough to convey a certain heightened sense of dissidence.

You and your friend meet the two rock stars, their A&R man, and their manager. The manager drifts off when he realizes that there is no threat of any actual business transpiring. You're just a fan. With some translation help from your friend you eagerly question the musicians. You long to know what's cooking in the Tokyo pop-music scene. It transpires that these particular rockers listen mostly to electronic European dance music. Their biggest Japanese hit was a song about Paris sung in English.

One of the rockers asks you if you have ever tried electronic brain stimulation. No, you say--have you? Yes, but it wasn't much good, really. You recall that, except for occasional problems with junior yakuza bikers high on cheap Korean speed, Japan hasn't much of a

"drug-problem." Everyone sighs wistfully and lights more cigarettes.

The restaurant you're in offers an indeterminate nonethnic globalized cuisine whose remote ancestry may have been French. The table is laid like, say, London in 1880, with butterballs in crystal glass dishes, filigreed forks as heavy as lead, fish-knives, and arcanely folded cloth napkins. You ask the musicians if this restaurant is one of their favorite dives. Actually, no. It's 'way too expensive. Eating in posh restaurants is one of those things that one just doesn't do much of in Japan, like buying gift melons or getting one's suit pressed. A simple ham and egg breakfast can cost thirty bucks easy--thirty- five with orange juice. Sane people eat noodles for breakfast for about a buck and a half.

Wanting to press this queer situation to the limit, you order the squid. It arrives and it's pretty good. In fact, the squid is great. Munching a tentacle in wine-sauce you suddenly realize that you are having a *really good time*. Having dinner with a Japanese rock band in Tokyo is, by any objective standard, just about the coolest thing you've ever done!

The 21st Century is here all around you, it's happening, and it's craziness, but it's not bad craziness, it's an *adventure*. It's a total gas. You are seized by a fierce sense of existential delight.

Everybody grins. And the A&R man picks up the tab.

Shinkansen Part Two: The Increasingly Unstrange Case of Lafcadio Hearn and Rick Kennedy

I was in Japan twice in 1989--two weeks in all. Big deal. This jaunting hardly makes me an "Old Japan Hand."

But I really wanted to mimic one in this installment of CATSCAN. So I strongly considered beginning with the traditional Westerner's declaration that I Understand Nothing About Japan or the Japanese: boy are they ever mystical, spiritual and inscrutable; why I've been a-livin' here nigh twenty year with my Japanese wife, Japanese job, Japanese kids and I'm just now a- scratchin' the surface of the baffling Yamato kokutai ...

These ritual declarations by career Nipponologists date 'way back to the archetypal Old Japan Hand, Lafcadio Hearn (aka Yakumo Koizumi) 1850- 1904. Not coincidentally, this kind of rhetoric is very useful in making *yourself* seem impressively mystic, spiritual and inscrutable. A facade of inscrutable mysticism is especially handy if you're anxious to hide certain truths about yourself. Lafcadio Hearn, for instance--I love this guy Hearn, I've been his devotee for years, and could go on about him all day--Hearn was your basic congenital SF saint-perv, but in a nineteenth century environment. Hearn was, in brief, a rootless oddball with severe personality problems and a pronounced gloating taste for the horrific and bizarre. Born of a

misalliance between a British officer and a young Greek girl, Hearn passed a classically miserable childhood, until fleeing to America at nineteen. As a free-lance journalist and part-time translator, penniless, shabby, declasse' and half-blind, Hearn knocked around all over for years-- Cincinnati, New Orleans, the Caribbean--until ending up in Japan in 1890.

There Hearn made the gratifying discovery that the Japanese could not tell that he was a weirdo. At home Hearn was alien; in Japan, he was merely foreign. The Meiji-era Japanese respectfully regarded the junketing Hearn as an influential man of letters, an intellectual, a poet and philosopher, and they gave him a University position teaching literature to the rising new generation. Hearn (a man of very genuine talent, treated decently for perhaps the first time in his life) responded by becoming one of Japan's first and foremost Western popularizers, emitting reams about Shintoism and ghosts and soul-transference and the ineffableness of everythinghood.

Hearn had always been pretty big on ineffableness, but Japan seemed to fertilize the guy's eccentricities, and he became one of the truly great fantasy writers of all time. If you don't know Hearn's work, you owe it to yourself to discover it: _Kokoro_, _Gleanings in Buddha-Fields_, _Shadowings_, _Kwaidan_, _Kotto_, all marvelous books (thoughtfully kept in print by Tuttle Books, that paragon of crosscultural publishers). Hearn's dark fantasies rival Dunsany and Lovecraft in their intense, brooding idiosyncrasy; and as a bonus, his journalistic work contains long sustained passages of close observation and penetrating insight, as well as charming period flavor.

What did the Japanese make of all this? Well, after many years, the authorities finally caught on and fired Hearn -- and they had one of the first Tokyo University riots on their hands. Hearn was impossible to deal with, he was a paranoiac with a mean streak a mile wide, but his students genuinely loved the guy. Hearn really spoke to that generation--the generation of Japanese youth who found themselves in universities, with their minds permanently and painfully expanded with queer foreign ideas. Here was one sensei who truly knew their paradoxical sorrows, and shared them. Hearn's appeal to the new Japan was powerful, for he was simultaneously ultramodern and sentimentally antiquarian--an exotic patriot--a Western Orientalist--a scientific mystic.

Lafcadio Hearn loved Japan. He married a Japanese woman, had Japanese children, took a Japanese name, and was one of the bare handful of foreigners ever granted Japanese citizenship. And yet he was always a loner, a congenital outsider, viewing everyone around him through ever-thickening lenses of his peculiar personal philosophy. Paradoxically, I believe that Lafcadio Hearn chose to stay

in Japan because Japan was the place that allowed him to become most himself. He reached some very personal apotheosis there.

But now let's compare the nineteenth-century Hearn to a contemporary "Old Japan Hand," Rick Kennedy, author of _Home, Sweet Tokyo_ (published, rather tellingly, by Kodansha Books of Tokyo and New York). Rick Kennedy, an employee of the globe-spanning Sony Corporation, writes a weekly column for the English-language "Japan Times." _Home, Sweet Tokyo_ is a collection of Kennedy's columns. The apt subtitle is "Life in a Weird and Wonderful City."

Compared to Hearn, Kennedy has very little in the way of philosophical spine. This is a magpie collection. Kennedy has an eye for the peculiar that rivals Hearn's, but no taste at all for the dark and horrific. _Home, Sweet Tokyo_ is in fact "sweet" and rather cute, with all the boisterous charm of the upwardly mobile bourgeoisie. There are satires, parodies, in-jokes, vignettes of daily life in the great metropolis.

And there are interviews, profiles, of the people of Tokyo. Folks of all sorts: professional pachinko-players, the white-gloved guys who scrub the subway trains, the dignified chefs of top Tokyo restaurants, office-girls gamely searching for a rung on a very male corporate ladder.

Hearn did a similar sort of exploratory prying in Japan's nooks and byways, but the flavor of his reportage is entirely different. Hearn's Japanese subjects tend to be elfin, evasive personages, alluding to grave personal tragedies with a flicker of an eyelid and a few stoic verses. Hearn's subjects are not fully individuated men and women, but incarnated principles, abstractions, a source for social insights that can degenerate at a careless touch into racist or jingoistic cliche'.

Kennedy, in stark contrast, treats people as people, hail fellows well met. As a consequence, his Japan comes across rather like a very crowded but well-heeled Kiwanis Club. He lacks a morbid interest in life's extremities; but at least he never lashes his subjects to the Procrustean bed of stereotype. He looks clear-eyed at postmodern Japan in all its individual variety: eldritch rural grannies and megalopolitan two-year-olds, uptight accountants and purple-haired metal kids, Shinto antiquarians and red-hot techno- visionaries, rarefied literati and dumb-ass TV stars.

This is a Japan which can no longer be tidily filed away under "I" for "Inscrutable" by a WestCiv Establishment with the self-appointed task of ordering the world. Japan today is an intensely globalized society with sky- high literacy, very low crime, excellent life-expectancy, tremendous fashion- sense, and a staggering amount of

the electronic substance we used to call cash. After centuries of horrific vicissitudes and heartbreaking personal sacrifice, the Japanese are fat, rich, turbo-charged, and ready to party down. They are jazzing into the 21st-Century global limelight in their velcro'd sneakers, their jeans stuffed with spare film-packs and gold-plated VISA cards. Rick Kennedy's book makes it absolutely clear why the Japanese *fully deserve* to do this, and why all those Japan-bashing sourpuss spoilsports ought to lighten up and give 'em room to shine.

Like Hearn, Kennedy has a Japanese wife, Japanese children, an intense commitment to his adopted home. What has happened in the meantime (i.e., during the 20th century) is a slow process of "un-strange-ing," of deromanticism, de-exoticism, a change from watery dream-colors to the sharp gleam of flashbulbs and neon. It is a process that science fiction people, as romantics, are likely to regard with deep ambiguity. We are much cozier with the Hearns of the world than the brisk and workaday Kennedys.

And yet I must return to Hearn's Paradox: that his attempt to "woo the Muse of the Odd," as he put it, was not a true marriage, but a search for self- realization. Kennedy, unlike Hearn, can embrace Otherness without seeking moral lessons and mystic archetypes. Kennedy, unlike Hearn, can imagine himself Japanese. He goes farther yet, for Kennedy knows that if he *were* Japanese, he would not live in Tokyo. A Japanese Rick Kennedy, he says, would head at once for Los Angeles, that weird and wonderful city, with its exotic Yankee luxuries of crowd-free tennis courts and private swimming pools.

And this, it seems to me, is a very worthy insight. This is a true, postmodern, global cosmopolitanism, rather than Hearn's romantic quest for Asian grails and unicorns. Cosmopolitanism offers little in the way of spine- chilling visionary transcendence. Instead, the glamour of Otherness is internalized, made part of the fabric of daily life. To the global cosmopolite-- an eternal expatriate, no matter what his place of birth--there are no certainties, no mystic revelations; there are only fluctuating standards of comparison. The sense-of-wonder is not confined to some distant realm of Zen or Faerie, safely idealized and outside oneself; instead, *normality itself* seems more or less disjointed and disquieting, itchy with a numinous glow of the surreal, "weird and wonderful," as Kennedy says--with the advantage/ drawback that this feeling *never goes away*.

I would urge on every science fiction person the rich experience of reading Lafcadio Hearn. I share his fascination with thee culture of historical Japan, the world before the black ships; like Hearn I can mourn its loss. But it's dead, even if its relics are tended in museums with a nervous care. SF people need to dote a little less on the long-ago and far-away, and pay more robust attention to the living: to the

elaborate weirdness at work in our own time. Writers of serious science fiction need to plunge out there into the bustle and do some basic legwork and come up with some futures people can believe in. We need to address a new audience: not just the usual SF faithful, but the real no-kidding folks out there, the global populace, who can see an old world order disintegrating every time they turn on the TV, but have no idea what to make of it, what to think about it, what to do. We need to go beyond using exotic foreigners as templates for our own fantasies; we need to find the common ground of common global issues. At the very first and least, we need to demand more translation-work within our own genre. We need to leap the Berlin Walls of national marketing and publishing. We need to get in touch.

The walls are going down all over the world, and soon we'll all be in each other's laps. Japan's just one country, it's not the be-all and end-all. But Japan is very crowded, with strictly limited resources; because of that, Japan today is a dry run under 21st-century conditions. It's not the only such model; Lebanon and El Salvador are small and crowded too. These places model possible futures; they are choices we can make. It's all the choice between a sake bash in the Tokyo Disneyland and a hostage-seizure in a bombed-out embassy. We must learn from these successes and mistakes; learn about other people, learn from other people, learn to *be* other people.

We can do it. It's not all that hard. It's fun, even. Everybody can help. It doesn't take transcendent effort or coaching by cultural pundits. Do one six- billionth of the work of global understanding, and you have every right to feel proud of yourself.

The subworld of SF has the advantage of (limited) international appeal, and can do good work here. If we don't do something, some earnest attempt to understand and explicate and shape the future--the *real* future, everybody's future, starting *now*--then in all honesty we should abandon "Science Fiction" as a genre. We shouldn't keep the rags and tatters of the thing, while abandoning its birthright and its best native claim to intellectual legitimacy. There are many worthy ways to write fiction, and escapist genres aplenty for people who want to write amusing nonsense; but this genre ought to stand for something.

SF can rise to this challenge. It ain't so tough. SF has risen from the humblest of origins to beat worse odds in the past. We may be crazy but we ain't stupid. It's a little-known fact (in which I take intense satisfaction) that there are as many subscribers to *SF Eye* in Japan as there are in the US and Canada. It's a step. I hope to see us take many more. Let's blunder on out there, let's take big risks and make real mistakes, let's utter prophecies and make public fools of ourselves; we're science fiction writers, that's our goddamn job. At

least we can plead the limpid purity of our intentions. Yoroshiku onegai itashimasu.

CATSCAN 7 "My Rihla"

Abu 'Abdallah ibn Battuta, gentleman and scholar, late of Tangier, Morocco, has been dead for six hundred and thirty years. To be remembered under such circumstances is a feat to compel respect.

Ibn Battuta is known today because he happened to write a book--or rather, he dictated one, in his retirement, to a Granadian scribe--called _A Gift to the Observers, Concerning the Curiosities of Cities and the Marvels Encountered in Travels_. It's more often known as "The Rihla of Ibn Battuta," rihla being an Arabic literary term denoting a pious work concerned with holy pilgrimage and foreign travel.

Sometimes known as "the Marco Polo of Islam," Ibn Battuta claimed to have traveled some seventy thousand miles during the years 1325-1354, visiting China, Arabia, India, Ghana, Constantinople, the Maldive Islands, Indonesia, Anatolia, Persia, Iraq, Sicily, Zanzibar ... on foot, mind you, or in camel caravans, or in flimsy medieval Arab dhows, sailing the monsoon trade winds.

Ibn Battuta travelled for the sake of knowledge and spiritual advancement, to meet holy men, and to listen to the wisdom of kings, emirs, and atabegs. On occasion, he worked as a judge or a courtier, but mostly he dealt in information--the gossip of the road, tales of his travels, second-hand homilies garnered from famous Sufi mystics. He covered a great deal of territory, but mere exploration was not the source of his pride.

Mere distance mattered little to Ibn Battuta -- in any case, he had a rather foggy notion of geography. But his Moslem universe was cosmopolitan to an extent unrivalled 'till the modern era. Every pious Moslem, from China to Chad, was expected to make the holy pilgrimage to Mecca--and they did so, in vast hordes. It was a world on the move. In his twenty-year peregrinations. Ibn Battuta met the same people again and again. An Arab merchant, for instance, selling silk in Qanjanfu, China, whose brother sold tangerines in Fez (or fezzes in Tangier, presumably, when he got the chance). "How far apart they are," Ibn Battuta commented mildly. It was not remarkable.

Travel was hazardous, and, of course, very slow. But the trade routes were open, the caravanserais-- giant government-supported hotels, sometimes capable of housing thousands--were doing a brisk trade from Cairo to Delhi to Samarkand. The locals were generally friendly, and respectful of learned men--sometimes, so delighted to see foreigners that they fell upon them with sobs of delight and fought for the prestige of entertaining them.

Professor Ross Dunn's narrative of _The Adventures of Ibn Battuta_ made excellent, and perhaps weirdly apt, reading last April, as I was

traveling some thirty thousand feet above the North Atlantic in the boozy tin-can comfort of a KLM 747.

"God made the world, but the Dutch made Holland." This gross impiety would have shocked the sufi turban off the valorous Ibn Battuta, but we live today, to paraphrase Greg Bear, in a world of things so monstrous that they have gone past sin and become necessity. Large and prosperous sections of the Netherlands exist well below sea level. God forbid the rest of us should have to learn to copy this trick, but when I read the greenhouse-warming statistics I get a shuddery precognitive notion of myself as an elderly civil-defense draftee, heaving sandbags at the angry rising foam ...

That's not a problem for the Dutch at the moment. They do, however, currently find themselves confronting another rising tide. "The manure surplus." The Dutch are setting up a large government agro- bureaucracy to monitor, transport, and recycle, er, well, cowshit. They're very big on cheese, the Dutch, but every time you slice yourself a tasty yellow wedge of Gouda, there is somewhere, by definition, a steaming heap of manure. A completely natural substance, manure; nitrogen, carbon and phosphorous, the very stuff of life--unless *there's too much of it in one place at the same time*, when it becomes a poisonous stinking burden. What goes around, comes around--an ecological truism as painful as constipation. We can speculate today about our own six hundred year legacy: not the airy palaces of the Moorish Alhambra, I'm afraid, or the graceful spires of the Taj Mahal, but billions of plastic-wrapped disposable diapers, mashed into shallow graves ...

So I'm practicing my Arab calligraphy in my scholarly cell at the Austin madrassa, when a phone call comes from The Hague. Over the stellar hiss of satellite transmission, somebody wants me and my collaborator to talk about cyberspace, artificial reality, and fractals. Fair enough. A month later I'm sipping Coke and puffing Dunhills in tourist class, with a bag full of computer videotapes crammed in the overhead bin, outdistancing Ibn Battuta with no effort more strenuous than switching batteries in a Walkman.

Aboard the plane, I strike up a discussion with a young Italian woman--half-Italian, maybe, as her father is an Iranian emigre'. She calls herself a "Green," though her politics seem rather strange--she sympathizes openly with the persecuted and misunderstood white Afrikaaners, for instance, and she insists that the Ayatollah Khomeini was an agent of British Intelligence. I have a hard time following these arguments, but when it comes to the relations of the US and Europe, her sentiments are clear enough. "After '92, we're going to kick your ass!" she tells me.

Unheard of. Europeans used to marvel humbly over our

astonishing American highway system and the fact that our phones work (or used to). That particular load of manure is now history. The Europeans are happening now, and they know it. 1989 was a pivotal year for them, maybe the most momentous popular upheaval since 1789.

This century has not been a good one for Europe. Since 1914, the European body-politic has been wheezing along on one lung, a mass of fresh scar tissue when it wasn't hemorrhaging blood and bile. But this century, "The American Century," as we used to call it in 1920 when there was a lot of it still before us, is almost gone now. A lot can happen in a century. Dynasties rise and fall. Philosophies flourish and crumble. Cities rise, thrive, and are sacked by Mongols and turned to dust and ghosts.

But in Europe today, the caravanserais are open. National borders in Europe, which provoked the brutal slaughter of entire generations in '14 and '44, have faded to mere tissues, vaporous films, riddled through-and-through with sturdy money-lined conduits of trade, tourism, telecommunications. Soon the twelve nations of the European Community will have one passport, perhaps one currency. They look to the future today with an optimism they have not had since "the lamps went out all over Europe" in World War One. (Except perhaps for one country, which still remains mired in the Cold War and a stubborn official provincialism: Britain. The Dutch feel sorry for Britain: declining, dirty, brutalized, violent and full of homeless--far too much, in short, like their too-close friends, the Americans.)

My Italian acquaintance introduces me to her mother, who is a passionate devotee of Shirley MacLaine. Mom wears an Iranian gold bracelet the size of rappers' jewelry, a diamond-studded knuckleduster. Her husband, the Iranian emigre', is an architect. His family was close to the Shah, and is now a scattered Moslem hejira in a dozen Western capitals, plotting vengeance in desultory fashion, like so many White Russians in 1929. They may have a long wait. Father looks rather tired.

Off the plane, jet-lagged to hell and gone, in Amsterdam. A volunteer for the Image and Sound Festival drives me to The Hague in a very small car on a very large autobahn. Windmills here and there. Days later I inspect a windmill closely, a multistory preindustrial power-station of sailwork, levers, gears and thatch. An incarnation of a late-medieval tech that America simply never possessed. A somehow monstrous presence fit to scare the hauberk off Don Quixote.

The Hague is a nineteenth-century government town of close-packed four-story townhouses. The pavements, built on sand, ripple and warp like the sagging crust of an old pie. Advertisements in the bus-stops brutally abolish any air of the antique, though: "Mag ik u

iets persoonlijks faxen? De Personal Fax van Canon. CANON--Meeten al een Voorsprong!" Dutch is close enough to English to nag at the ear, but it's landmined with liquid vowels and odd gutturals. The streets--"straats"--are awash with aging Euro baby- boomers, leavened with a Dutch-born populace of imperial emigres -- Dutch-Indonesian, Dutch-Surinamese, Dutch-Chinese.

On Wednesday, Moluccan separatists bombarded the Indonesian embassy, near my hotel, with Molotov cocktails. A dozen zealots were injured. Nobody outside Holland and Indonesia know much about the Moluccans, an Asian Moslem ethnic group with a nationalistic grievance. They'd love to raise hell at home in Indonesia, but when they do they're shot out of hand by fascist police with teeth like Dobermans, so they raise a stink in the old Mother Country instead, despite the fact that Holland can do almost nothing for them. Europe is full of exiles--and full of its own micro-nations: the Flemish, the Magyars, Gypsies, Corsicans and Bretons, Irish who remember Cromwell, Jews who remember Nebuchadnezzar, Basques who remember Hannibal, all like yesterday.

Ibn Battuta's world was similarly polyglot, and divided into "nations," too, run by mamelukes and moghuls who doted on tossing dissidents to packs of ravenous man-eating dogs. Muhammed Tughlug, the radiant Sultan of Delhi, punished rebels (very loosely defined) by having them cut in half, skinned alive, and/or tossed aloft by trained elephants with swords strapped to their tusks. It was bad news to cross these worthies, and yet their borders meant little, and ethnicity even less. A believer was a citizen anywhere in Islam, his loyalties devoted to Civilization--the sacred law of the Prophet--and then to his native city. Ibn Battuta was not a "Moroccan" countryman or a "Berber" ethnic, but first a learned Islamic scholar, and second a man of Tangier.

It may soon be much the same in Europe--a vague attachment to "Western democratic ideals," while one's sense of patriotism is devoted, not to one's so-called country, but to Barcelona or Amsterdam, Marseille or Berlin. (Cities, mind you, with populations every bit as large as entire nations of the medieval world.) At this period in history, the aging institution of the nation-state is being torn from above and below--below by ethnic separatists, above by the insistent demands of multinational commerce and the global environment.

Is there a solution for the micronations-- besides, that is, the dark horrific example of the "Final Solution?" Maybe. Let the Lithuanians "go"-- give them "freedom"--but with no local currency, no local army, no border tariffs or traffic control, no control over emigration, and with the phones and faxes open 24 hours a day. What is left? City-

level government, in a loose ecumenicum.

A good trick, if anyone could pull it off. It's contrary to our recent political traditions, so it seems far-fetched and dangerous. But it's been done before. Six hundred years ago, in another world ... The fourteenth century, what Barbara Tuchman called _A Distant Mirror_.

In Alanya, a city of medieval Anatolia, Ibn Battuta had his first introduction to the interesting organization known as the fityan. He was invited to dinner by a remarkably shabby man in an odd felt hat. Ibn Battuta accepted politely, but doubted that the young fellow had enough money to manage a proper feast.

His interpreter laughed, for the shabby young man was a powerful sheik of the fityan. "The fityans were corporations of unmarried young men representing generally the artisan classes of Anatolian towns ... The code of conduct and initiation ceremonies were founded on a set of standards and values that went by the name of futuwwa ... referring in concept to the Muslim ideal of the `youth' (fata) as the exemplary expression of the qualities of nobility, honesty, loyalty and courage. The brothers of the fityan were expected to lead lives approaching these ideal qualities, including demonstrations of generous hospitality to visiting strangers ... By the thirteenth or fourteenth centuries, the fityan associations existed in probably every Anatolian town of any size. In an era of political upheaval and fragmentation ... the fityan were filling a crucial civic function of helping to maintain urban cohesiveness ..."

Far from humble poverty, Ibn Battuta found his medieval youth-culture hosts occupying a fine downtown lodge crammed with pricey Byzantine rugs and Iraqi glassware. The lads were dressed to the nines in long cloaks, boots, knife-decked cummerbunds and snazzy white bonnets with pointed white peaks two feet high. "They brought in a great banquet, with fruits and sweetmeats, after which they began their singing and dancing." He was "greatly astonished at their generosity and innate nobility."

No more so, perhaps, than myself and my Canadian caravan companion when we found ourselves in a retrofitted nineteenth-century stove factory downtown in The Hague. Now a filmhouse, it was crammed with young Dutch media-devotees in the current multinational fityan get-up of black jeans and funny haircuts. Their code of conduct was founded in a set of standards and values that goes by the name of "cool." Six hundred years from now, the names of Mark Pauline, Laurie Anderson and Jean Baudrillard may mean little, but at the moment they are the stuff of a Sufi-like mystical bond.

We gave them a few names and second-hand homilies: Mandelbrot, ART-MATRIX, _Amygdala_, Jaron Lanier, Ryoichiro Debuchi--with addresses and fax numbers. We are pagans, of course,

and we have video screens; but basically little happened that would have surprised the lads of the fityan--except for the shocking anomaly that many of us were women.

In his travels through Anatolia, Ibn Battuta stayed with no less than 25 separate fityans. But then, he was a professional.

In my time off, I tramped the streets seeking the curiosities of cities and the marvels encountered in travels. Would the hashish have surprised Ibn Battuta? I rather doubt it. You can buy hashish in The Hague in little plastic bags, for about six bucks a pop, quite openly. A hole-in-the-wall place called The Jukebox offers a varied menu: Senegalese marijuana, Swazie, Columbian, Sensemilla ... and various global subspecies of hash: Chocolata, Ketama, Kabul, Sputnik, Zero-Zero ... It's a teenage thing, bubblegum. They're not allowed in bars, Dutch teenagers. They have to smoke this harmless hashish stuff instead. They seem rather moody and somber about it, for they don't kick up their heels, scream, giggle, or frighten the horses. They just get red-eyed and a bit sluggish, and listen to old Motown records while sipping orange soda and playing of all things, backgammon. They huff hash like monsters and nobody thinks a damn thing of it. Shocking.

In the Maldive Islands, Ibn Battuta was appointed a judge. The lax and easy life of the tropical Indian seas offended his sense of propriety. Once he sentenced a thief to have his right hand severed, a standard punishment by the sacred law, and several sissy Maldivans in the council hall fainted dead away at the sight of it. The women were worse yet. Most Maldivan women, he related, "wear only a waist-wrapper which covers them from the waist to the lowest part, but the remainder of their body remains uncovered. Thus they walk about in the bazaars and elsewhere. When I was appointed judge there, I strove to put an end to this practice and commanded the women to wear clothes; but I could not get it done. I would not let a woman enter my court to make a plaint unless her body were covered; beyond this, however, I was unable to do anything."

Poor fellow. Later in his career Ibn Battuta had the good luck to accompany a slave-train of six hundred African women as they were force-marched across the blistering Sahara. There was a great deal of money in the slave-trade; its master-traders were very well-respected. Ibn Battuta owned several slaves in his career, but he was an unlucky master; they could not keep up with his restless migrations, and drowned, or froze, or fell ill, or were sold. He does not keep count of the number of children he sired, but there were many, mostly by slave-women.

What atrocities are we committing today, that we too take in stride?

History lives in the Mauritshuis, shelter to a horde of Rembrandts and Vermeers. Portraits--with that pre-photographic intensity that an image had when it was one-of-a-kind, likely the only visual record of the sitter that would ever be made. The portraits are formalized, flattering, very studied, and they lie a lot. The children of the rich pick garlands of flowers in unlikely getups of velvet and chiffon, expensive fabrics that a grass-stain would ruin forever. This kind of portraiture is a dead visual language now, and when the language no longer works, the lies become evident, like someone else's old propaganda.

It was a rich and earthy life. Leather, wood, wool, bloody still-life heaps of slaughtered game. A woman in satin rides side-saddle with a boar-spear in one dainty gauntlet. Huntsmen let fly with flintlock muskets at a foam-snorting pig. The sky has never known an airplane; these are clouds that have never been seen from above, fleecy and untainted by smog.

But there is honesty, too. Vermeer's famous Girl in a Blue Turban is not posed, but caught in an instant in the mind's eye. She is plainly dressed, and her sweet frail face strikes the viewer in a sudden rush, the very opposite of all those formal images of Dutch aristos with unearned power and too much jewelry.

Here are Rembrandt's self-portraits--a big-nosed kid of twenty-two or so, striking a pose in fake- looking armor, the detail excellent, but perhaps a bit forced. Transmuted by time and experience, he becomes a big-nosed saggy-eyed veteran, a gold pendant in one earlobe. Less youth--but more gold. And a lightening- quick brushwork that catches the play of light with an almost frightening ease.

Flattery was their stock in trade. They knew it was a shuck, a stunt, a trick. Ever notice how good artists can make each other look? With their palettes hooked over their thumbs they resemble philosopher- kings. The big money was in flattery, but they were restless. Here and there real-life boils out in a rush. J. V. D. Heyde (1637-1712) paints the Jesuit Church of Dusseldorf. A couple of black-clad Jesuits tramp the street talking, very likely up to no good. A beggar-woman nurses a baby, with an older kid taking alms in the gutter. Who is the father? Ibn Battuta? Some working-stiff and his wife push a monster wheelbarrow up the hill, putting their backs into it. Dogs piss and tussle, and loungers bowl ninepins in the public square.

F. van Mieris (1635-1681) clearly spent a lot of time in bars. Here, taken from low-life, is a wasted blonde barmaid in a white dress, pouring wine for a redheaded captain-at-arms. In the doorway, a red dog fucks a white bitch, a symbol as stone-obvious as being hit in the head with a bung-starter.

A block away from the Mauritshuis is a shopping district, the

streets bent and skinny and pre- automotive, an open-air mall. MEGA WORLD COMPUTERWINKELS, reads the sign outside the software shop. Soon all Europe will be mega world computerwinkels, cool nets of data, a cybernetic Mecca. Our Mecca will be electronic, and you'll be a nobody 'till you've made that sacred pilgrimage.

We look to the future. Extrapolation is powerful, but so is analogy, and history's lessons must be repeated helplessly, until they are seen and understood and deliberately broken. In 54 Javastraat, the Ambassade van Iran has telecameras trained on its entrances. A wounded Islam is alive and convulsing in fevered spasms.

65 Zeestraat contains the Panorama Mesdag, the nineteenth century's answer to cyberspace. Tricks of light are harnessed to present a vast expanse of intricately painted, cunningly curved canvas, 360 degrees in the round. It presents, to the stunned eye, the seaside resort of Scheveningen, 1881 A.D. You stand on the center on a round wooden platform, a kind of faux-beachhouse, fenced in by railings; at your feet stretches an expanse of 100% real sand, studded with torn nets, rusting anchors, washed-up wooden shoes, fading cunningly into the canvas. This must surely be Reality--there's trash in it, it has to be real. The Panorama's false horizon will not sit still for the eye, warping in and out like a mescaline trip. Coal smoke hangs black and static from a dozen painted stacks, the bold ancestry of our current crimes against the atmosphere.

There used to be dozens of these monster Panoramas, in Paris, Hamburg, London. The Panorama is a dead medium, as dead as the stereograph, whose ungainly eye-gripping tin hood is now reborn as the head-wrapping Sony Watchmans of Jaron Lanier's Virtual Reality.

It all returns. The merchants and pilgrims of Ibn Battuta's flourishing Islam push their trade- routes farther, farther. Trade expands, populations swarm, laws and libraries grow larger and more refined. At length trade opens to an obscure corner of Siberia, where a certain species of rodent harbors a certain flea.

Ibn Battuta witnesses the result, without ever understanding it. June, 1348: travellers tell him of a virulent unknown disease raging in Gaza, a thousand people dying every day. Swellings appear in groin and neck and armpits, with nausea and delirium. If it takes to the lungs, the victim spits blood and dies within hours. In the town of Homs, in Syria, Ibn Battuta is engulfed by the wave of Black Death. Three hundred die on the day of his arrival there.

In Damascus, two thousand are dying each day and the great polyglot metropolis has shuddered to a halt. The amirs, the sharifs, the judges, and all the classes of the Moslem people, have assembled in the Great Mosque to supplicate God. After a night of prayer, they march out at dawn, barefoot, the Holy Koran in their hands. And then:

"The entire population of the city joined in the exodus, male and female, small and large, the Jews went out with their book of the law and the Christians with their Gospel, their women and children with them; the whole concourse of them in tears and humble supplications, imploring the favor of God through His Books and His Prophets."

As the pestilence lurches from city to city, from mosque to caravanserai, the afflicted scatter in terror, carrying their fleas like pearls throughout the vast linked network of the civilized world. From China to the Atlantic coast, Ibn Battuta's world is one, and therefore terribly vulnerable. The Great Wall of China is no defense; and Europe's foremost traders, the cosmopolitan Genoans and Venetians, will ship a cargo of death throughout the Mediterranean. Paris, Barcelona, Valencia, Tunis, Cairo, Damascus, Aleppo and Bordeaux will all suffer equal calamity in the dreadful spring and summer of 1348. Their scientific experts, those doctors who survive, will soberly advise their patients to apply egg yolks to the buboes, wear magical amulets, and have their sickbeds strewn with fresh flowers.

Ibn Battuta is now forty-five. Perhaps unnerved by the plague, he decides to return home to Tangier after twenty-five years on the road. For a while, the seasoned traveller outruns the horror, but it soon catches up with him again. When he reaches Tangier at last, the Death has come and gone. His father has been dead for fifteen years. But the plague has killed his aged mother. He misses her by mere months.

The havoc is unspeakable, beyond imagination. The Plague will return again in the next generation, and the next again, emptying cities and annihilating dynasties. The very landscape will change: irrigation canals will silt up, grass will grow over the trade- roads, forests will grow in old villages. It is Apocalypse.

Life will, nevertheless, go on. Civilization, pruned back bloodily and scourged by God Himself, refuses to collapse. History lurches under the blow, changes course--and moves on. A century of horror will fade, and, unguessed by anyone, a Renaissance beckons...

Ibn Battuta will meet a young Muslim poet from Spain, named Ibn Juzayy. Together they will compose a formal rihla of his travels. He works from memory--a vivid and well-trained memory, for Ibn Battuta, as a scholar of repute, can recite the entire Koran unaided, as well as many canons of the sacred law. Nevertheless, some poetic license will be taken, some episodes distorted, mis-remembered, or confused, some outright lies told. The great traveller will be regarded by many as a charlatan, or as a mere entertainer, a spinner of fantastic tales.

His Rihla will be little known until the nineteenth century, when European scholars discover it with astonishment and wonder.

CATSCAN 9 "Digital Dolphins in the Dance of Biz"

"It's the crystallization of a community!" the organizer exulted. He was a skinny, manic, handwaving guy, with a glittering eye and a sly toothy grin. He wore slacks, a zippered shirt of a color not found in nature, and a two-foot-tall novelty cowboy-hat, of bright purple felt, with a polka-dot hatband.

The "community" in question were computer game designers, swarming in a big roadside hotel in Silicon Valley, for four days in March 1991. There were close to four hundred of them. Time once again for "Computer Game Developers' Conference." This was the Fifth Annual gig, and the biggest one yet for "gaming professionals," and the best yet, maybe even the richest yet -- but, according to what I heard over the wine and cheese, it was somewhat less weird than the earlier ones. Almost dignified by contrast, almost professional. Some side-effect of all that "crystallization," presumably....

Five brief years ago, the very first such game-design conference had been conjoined in Chris Crawford's living room, and with room to spare. Mr. Crawford was the gentleman in the purple twenty-gallon hat.

I recognized the funny-hat syndrome. Made me feel right at home. When I first met Damon Knight, at Clarion, this legendary SF critic, editor and organizer had shown up with a big white bushel-basket beard, half-a-dozen hollow plastic baseball bats, and great bounding bag full of rubber superballs, which he proceeded to fling into the hallways and whack with vim. Damon Knight, as a turbo-weirdo, a veritable ne plus ultra of cracked genre loon, does not even have to try to pass for normal. And neither does Chris Crawford. This is pretty much what genuine "power" and "influence" look like, in a milieu of creative lunatics.

Chris Crawford is founder of the gaming conference, author of three books and thirteen computer games, and the premier critic, theorist, and analyst for THE JOURNAL OF COMPUTER GAME DESIGN: "The finest periodical dedicated to computer game design -- the longest-running periodical dedicated to computer game design -- the ONLY periodical dedicated to computer game design!"

Computer gaming, like science fiction, has old roots; they even share a common ancestor in H.G. Wells, a great player of simulation war-games. But as a conscious profession, "computer game design" is only five years old. Science fiction writing as a conscious profession dates back to Knight's founding of the Milford Conference in 1956,

followed, almost ten leisurely years later, by his establishment of the SFWA. The metabolism of computer gaming is very swift. Science fiction writers are to computer game designers as mosasaurs are to dolphins.

So, I had arrived in San Jose at the functional equivalent of a SFWA gig. A neatly desktop-published programme announced, on page one, "Our Goals for the Conference: * to foster information exchange among professionals in the computer game development industry, * to strengthen the network of personal relationships in the computer game development community, * to increase artistic and financial recognition for computer game developers, and * to enhance the quality of entertainment software."

Instantly recognizable SFWA committeespeak -- people trying hard to sound like serious professionals. Let's hear those goals again, in actual English: * to hang out and gossip; * to meet old friends again; * to try to figure out some way to make more money and fame from obstreperous publishers, crooked distributors, and other powerful sons-of-bitches; and, (last and conspicuously least) * to kind of try and do a better job artistically. Pretty much the same priorities as any Nebula gig.

The attendees were younger, different demographics than the SFWA, but then their pursuit is younger, too. They looked a little different: still mostly white guys, still mostly male, still mostly myopic, but much more of that weird computer-person vibe: the fuzzy Herman Melville beards, the middle-aged desk-spread that comes from punching deck sixty hours a week, whilst swilling endless Mountain Dews and Jolt Colas, in open console- cowboy contempt of mere human flesh and its metabolic need for exercise and nutrition... There were a few more bent engineers, more techies gone seriously dingo, than you'd see at any SFWA gig. And a faint but definite flavor of Hollywood: here and there, a few genuinely charismatic operators, hustlers, guys in sharp designer suits, and career gals who jog, and send faxes, and have carphones.

As a group, they're busily recapitulating arguments that SF had decades ago. The number one ideological struggle of CGDC '91 -- an actual panel debate, the best-attended and the liveliest -- concerned "depth of play versus presentation." Which is more important -- the fun of a game, its inherent qualities of play -- or, the grooviness of its graphics and sound, its production values? This debate is the local evolutionary equivalent of "Sense of Wonder" versus "Literary Excellence" and is just about as likely to be resolved.

And then there's the ever-popular struggle over terminology and definition. ("What Is Science Fiction?") What is a "computer-game?" Not just "videogames" certainly -- that's kid stuff ("sci-fi"). Even

"Computer Games" is starting to sound rather musty and declasse', especially as the scope of our artistic effort is widening, so that games look less and less like "games," and more and more like rock videos or digitized short films. Maybe the industry would be better off if we forgot all about "games," and suavely referred to our efforts as "computer entertainment" ("speculative fiction").

And then there are the slogans and the artistic rules-of-thumb. "Simple, Hot, and Deep." A game should be "simple": easy to learn, without excess moving parts and irrelevant furbelows to burden the player's comprehension. It should be "hot" -- things should happen, the pace should not lag, it should avoid dead spots, and maintain interest of all players at all times. And it should be "deep" -- it should be able to absorb as much strategic ingenuity as the player is willing to invest; there should be layer after layer of subtlety; it should repay serious adult attention. "An hour to learn, a lifetime to master."

And: "Throw the first one away." Game design is an iterative process. Games should be hammered into shape, tested, hammered again, tested again. The final product may bear as little relation to the original "idea" as the average Hollywood film does to the shooting script. Good game-testers can be as vital and useful as good editors in fiction; probably more so.

There are other issues of artistic expression. There is, for instance, censorship, both external, and self-imposed. Young kids like computer games; even quite sophisticated games end up in the hands of little kids, and are designed accordingly. The game "Maniac Mansion" was pulled from the shelves of the Toys-R-Us chain because (horror) it had the word "lust" on the box!

"Hidden Agenda" is a very innovative and highly politicized simulation game, in which the player must take the role of President of a small and turbulent Central American country, menaced by internal violence and Cold War geopolitics. "Hidden Agenda" is universally admired, but had a hard time finding a publisher.

There was an earnest panel on ethics in graphic violence. When a villain is shot in a game, should the designer incorporate digitized blood and guts in the scene? Some game designers feel quite disturbed about "the Nintendo War" in the Gulf, in much the way that some SF writers felt, some years back, about the advent of Reagan's "Star Wars." "Space exploration" had seemed a noble thing, until the prospective advent of orbital x-ray laser fortresses. Was this what all our shiny rocket ships were supposed to be about, in the end? Now game designers feel a similar sneaking guilt and a similar sense of betrayal, suspecting that videogames have in fact cheapened violence, and made inflicting death-by-computer seem a fine occupation for American youth. It seems perfectly fine to kill "enemies" with

cybernetic air-strikes, as long as their blood doesn't actually splatter the VDT screen...

And then there's pornography, already present in the burgeoning CD- ROM market. If you're playing strip-poker with a virtual digitized Playboy- model, is that harmless fun-for-guys stuff, with nobody exploited, nobody hurt? Or is it some kind of (gulp) hideously oppressive dehumanized computer-assisted sex-objectification?

And then, of course, there's business. Biz. Brass tacks. Your average game designer makes rather more than your average SFWA member. It's still not a living wage. The gamers have to work harder, they have more specialized skills, they have less creative control, and the pace is murderous. Sixty-hour-weeks are standard in the industry, and there's no such thing as a "no-layoffs" policy in the software biz. Everybody wants to hire a hard-working, technically talented enthusiast; having found such a person, it is standard to put him on the "burnout track" and work him to collapse in five years flat, leaving the staggering husk to limp away from "entertainment" to try and find a straight job someplace, maintaining C code.

As "professionalism" spreads its pinstriped tentacles, the pioneers and the lone wolves are going to the wall. There is "consolidation" in the industry, that same sinister development that has led written SF deeper and deeper into the toils of gigantic multinational publishing cartels and malignant bookstore chains. "Software chains" have sprung up: Babbage's, Electronic Boutique, Walden Software, Soft Warehouse, Egghead. The big game publishers are getting bigger, the modes of publishing and distribution are calcifying and walling-out the individual entrepreneur.

"Sequelism" is incredibly common; computer gaming builds off established hits even more shamelessly than SF's nine-part trilogy-trilogies. And "games" in general are becoming more elaborate: larger teams of specialized workers tackling pixel animation, soundtrack, box design; more and more man-hours invested into the product, by companies that now look less like young Walt Disney drawing in a tabletop in Kansas, and much more like old Walt Disney smoking dollar cigars in Hollywood. It's harder and harder for a single creative individual, coming from outside, to impose his vision on the medium.

Some regard this development as a healthy step up the ladder to the Real Money: Lucasfilm Games, for instance, naturally wants to be more like its parent Lucasfilm, and the same goes for Walt Disney Computer.

But others suspect that computer-gaming may suffer artistically (and eventually financially) by trying to do too much for too many. Betty Boop cartoons were simple and cheap, but were tremendously popular at the time of their creation, and are still cherished today.

Fleischer Studios came a cropper when they tried to go for full-animation feature films, releasing bloated, overproduced bombs like GULLIVER that tried and failed to appeal to a mass audience.

And then there is The Beast Men Call 'Prodigy.' Prodigy is a national computer network that has already absorbed nine hundred million dollars of start-up money from IBM and Sears. Prodigy is, in short, a Major Player. In the world of computer gaming, $900,000,000 is the functional equivalent of nuclear superpower status. And Prodigy is interested in serious big-time "computer entertainment." Prodigy must win major big-time participation by straight people, by computer illiterates. To survive, it must win an entirely new and unprecedently large popular audience.

And Prodigy was at the gaming conference to get the word out. Prodigy subscribers play twelve thousand games of "Chief Executive Officer" every day! What Prodigy wants is, well, the patronage of Normal People. Nothing offensive, nothing too wacky, nothing too weird. They want to be the Disney Channel of Cyberspace. They want entirely new kinds of computer games. Games that look and smell like primetime TV, basically. A crisply dressed Prodigy representative strongly urged game-designers present to "lose the Halloween costumes." Forget "the space stuff" and "the knights in armor." Prodigy wants games normal folks will play, something that reflects general American experience. Something like... hmmm... "a high school popularity contest."

The audience seemed stunned. Scarcely a human being among them, of either sex, could have ever won a high school popularity contest. If they'd ever been "popular," they would never have spent so much time in front of computers. They would have been out playing halfback, or getting laid, or doing other cool high-school things -- doing anything but learning how to program. Not only were they stunned, but they rather resented the suggestion; the notion that, after years of trying to be Frank Frazetta, they were suddenly to become Norman Rockwell. I heard sullen mutterings later about "Ozzie and Harriet Prodigy droids."

And yet -- this may well be The Future for "computer entertainment." Why the hell does prime-time TV look as bad and stupid as it does? There are very good reasons for this; it's not any kind of accident. And Prodigy understands those reasons as well or better than any wacko gamedesigner in a big purple hat.

Bleak as this future prospect may seem, there was no lack of optimism, the usual ecstatic vaporware common to any business meeting of "computer people." Computer game designers have their faces turned resolutely to the future; they have little in the way of "classics." Their grails are all to come, on the vast resistless wings of

technological advance. At the moment, "interactive characters" in games, characters that behave realistically, without scripts, and challenge or befriend the player, are primitive and scarcely workable constructs. But wait till we get Artificial Intelligence! Then we'll build characters who can carry out dramas all by themselves!!

And games are becoming fatter and more elaborate; so much so that the standard money-making target machine, the cheap IBM-PC clone with the 16-bit 8088 chip running at five megahertz, is almost unable to hold them. Origin's state-of-the-art "Wing Commander" game can take up half a hard disk. But bigger machines are coming soon. Faster, with much better graphics. Digital sound as good as stereos, and screens better than TV! Cheap, too!

And then there's CD-ROM. Software, recorded on a shiny compact disk, instead of bloated floppies and clunking hard disks. You can put fifteen hundred (1500!) Nintendo cartridge games onto one compact disk -- and it costs only a dollar to make! Holy Cow!

The industry is tough and hardened now. It survived the Great Crash of 1984, which had once seemed the end of everything. It's crewed by hardy veterans. And just look at that history! Why, twenty years ago there was nothing here at all; now computer entertainment's worth millions! Kids with computers don't do anything much with them at all, except play games -- and their parents would admit the same thing, if they told the truth. And in the future -- huge games, involving thousands of people, on vast modem- linked networks! Of course, those networks may look much like, well, Prodigy....

But even without networks, the next generation of PCs will be a thing of dazzlement. Of course, most everything written for the old PC's, and for Macs and Amigas and such, will be unceremoniously junked, along with the old PC's themselves. Thousands of games... thousands of man-hours of labor and design... erased from human memory, a kind of cultural apocalypse... Everything simply gone, flung out in huge beige plastic heaps like junked cars. Dead tech.

But perhaps "cultural apocalypse" is overstating matters. Who cares if people throw away a bunch of obsolete computers? After all, they're obsolete. So what if you lose all the software, too? After all, it's just outdated software. They're just games. It's not like they're real art.

And there's the sting.

A sting one should remember, and mull upon, when one hears of proposals to digitize the novel. The Sony reader, for instance. A little hand- held jobby, much like its kissing cousin the Nintendo Game Boy, but with a print-legible screen.

Truck down to the local Walden Software, and you buy the local sword-and-planet trilogy right on a disk! Probably has a game tie-in, too: read the book; play the game!

And why stop there? After all, you've got all this digital processing- power going to waste.... Have it be an illustrated book! Illustrated with animated sequences! And wait -- this book has a soundtrack! What genius! Now even the stupidest kid in the block is gonna want to learn to read. It's a techical fix for the problem of withering literature!

And think -- you could put a hundred SF books on a compact disk for a buck! If they're public domain books.... Still, if there's enough money in it, you can probably change the old-fashioned literary copyright laws in your favor. Failing that, do it in Taiwan or Thailand or Hong Kong, where software piracy is already deeply embedded in the structure of business. (Hong Kong pirates can steal a computer game, crack the software protection, and photocopy the rules and counters, and sell it all back to the US in a ziplock baggie, in a week flat. Someday soon books will be treated like this!)

Digital Books for the Information Age -- books that aspire to the exalted condition of software! In the, well, "cultural logic of postmodern capitalism," all our art wants to be digital now. First, so you can have it. Replicate it. Reproduce it, without loss of fidelity. And, second -- and this is the hidden agenda -- so you can throw it away. And never have to look at it again.

How long will the first generation of "reading-machines" last? As long as the now utterly moribund Atari 400 game machine? Possibly. Probably not. If you write a "book" for any game machine -- if you write a book that is software -- you had better be prepared to live as game software people live, and think as game software people think, and survive as game software people survive.

And they're pretty smart people really. Good fun to hang out with. Those who work for companies are being pitilessly worked to death. Those who work for themselves are working themselves to death, and, without exception, they all have six or seven different ways of eking out a living in the crannies of silicon culture. Those who own successful companies, and those who write major hits, are millionaires. This doesn't slow down their workaholic drive though; it only means they get bigger and nicer toys.

They're very bright, unbelievably hard-working, very put-upon; fast on their feet, enamored of gambling... and with a sadly short artistic lifespan. And they're different. Very different. Digital dolphins in their dance of biz -- not like us print-era mosasaurs.

Want a look at what it would be like? Read THE JOURNAL OF COMPUTER GAME DESIGN (5251 Sierra Road, San Jose, CA 95132 -- $30/six issues per year). It's worth a good long look. It repays close attention.

And don't say I didn't warn you.

CATSCAN 10 "A Statement Of Principle"

I just wrote my first nonfiction book. It's called THE HACKER CRACKDOWN: LAW AND DISORDER ON THE ELECTRONIC FRONTIER. Writing this book has required me to spend much of the past year and a half in the company of hackers, cops, and civil libertarians.

I've spent much time listening to arguments over what's legal, what's illegal, what's right and wrong, what's decent and what's despicable, what's moral and immoral, in the world of computers and civil liberties. My various informants were knowledgeable people who cared passionately about these issues, and most of them seemed well-intentioned. Considered as a whole, however, their opinions were a baffling mess of contradictions.

When I started this project, my ignorance of the issues involved was genuine and profound. I'd never knowingly met anyone from the computer underground. I'd never logged-on to an underground bulletin- board or read a semilegal hacker magazine. Although I did care a great deal about the issue of freedom of expression, I knew sadly little about the history of civil rights in America or the legal doctrines that surround freedom of the press, freedom of speech, and freedom of association. My relations with the police were firmly based on the stratagem of avoiding personal contact with police to the greatest extent possible.

I didn't go looking for this project. This project came looking for me. I became inextricably involved when agents of the United States Secret Service, acting under the guidance of federal attorneys from Chicago, came to my home town of Austin on March 1, 1990, and confiscated the computers of a local science fiction gaming publisher. Steve Jackson Games, Inc., of Austin, was about to publish a gaming-book called GURPS Cyberpunk.

When the federal law-enforcement agents discovered the electronic manuscript of CYBERPUNK on the computers they had seized from Mr. Jackson's offices, they expressed grave shock and alarm. They declared that CYBERPUNK was "a manual for computer crime."

It's not my intention to reprise the story of the Jackson case in this column. I've done that to the best of my ability in THE HACKER CRACKDOWN; and in any case the ramifications of March 1 are far from over. Mr Jackson was never charged with any crime. His civil suit against the raiders is still in federal court as I write this.

I don't want to repeat here what some cops believe, what some hackers believe, or what some civil libertarians believe. Instead, I want to discuss my own moral beliefs as a science fiction writer -- such as they are. As an SF writer, I want to attempt a personal statement of principle.

It has not escaped my attention that there are many people who believe that anyone called a "cyberpunk" must be, almost by definition, entirely devoid of principle. I offer as evidence an excerpt from Buck BloomBecker's 1990 book, SPECTACULAR COMPUTER CRIMES. On page 53, in a chapter titled "Who Are The Computer Criminals?", Mr. BloomBecker introduces the formal classification of "cyberpunk" criminality.

"In the last few years, a new genre of science fiction has arisen under the evocative name of 'cyberpunk.' Introduced in the work of William Gibson, particularly in his prize-winning novel NEUROMANCER, cyberpunk takes an apocalyptic view of the technological future. In NEUROMANCER, the protagonist is a futuristic hacker who must use the most sophisticated computer strategies to commit crimes for people who offer him enough money to buy the biological creations he needs to survive. His life is one of cynical despair, fueled by the desire to avoid death. Though none of the virus cases actually seen so far have been so devastating, this book certainly represents an attitude that should be watched for when we find new cases of computer virus and try to understand the motivations behind them.

"The New York Times's John Markoff, one of the more perceptive and accomplished writers in the field, has written than a number of computer criminals demonstrate new levels of meanness. He characterizes them, as do I, as cyberpunks."

Those of us who have read Gibson's NEUROMANCER closely will be aware of certain factual inaccuracies in Mr. BloomBecker's brief review. NEUROMANCER is not "apocalyptic." The chief conspirator in NEUROMANCER forces Case's loyalty, not by buying his services, but by planting poison-sacs in his brain. Case is "fueled" not by his greed for money or "biological creations," or even by the cynical "desire to avoid death," but rather by his burning desire to hack cyberspace. And so forth.

However, I don't think this misreading of NEUROMANCER is based on carelessness or malice. The rest of Mr. BloomBecker's book generally is informative, well-organized, and thoughtful. Instead, I feel that Mr. BloomBecker manfully absorbed as much of NEUROMANCER as he could without suffering a mental toxic reaction. This report of his is what he actually *saw* when reading the novel.

NEUROMANCER has won quite a following in the world of

computer crime investigation. A prominent law enforcement official once told me that police unfailingly conclude the worst when they find a teenager with a computer and a copy of NEUROMANCER. When I declared that I too was a "cyberpunk" writer, she asked me if I would print the recipe for a pipe-bomb in my works. I was astonished by this question, which struck me as bizarre rhetorical excess at the time. That was before I had actually examined bulletin-boards in the computer underground, which I found to be chock-a-block with recipes for pipe-bombs, and worse. (I didn't have the heart to tell her that my friend and colleague Walter Jon Williams had once written and published an SF story closely describing explosives derived from simple household chemicals.)

Cyberpunk SF (along with SF in general) has, in fact, permeated the computer underground. I have met young underground hackers who use the aliases "Neuromancer," "Wintermute" and "Count Zero." The Legion of Doom, the absolute bete noire of computer law-enforcement, used to congregate on a bulletin-board called "Black Ice."

In the past, I didn't know much about anyone in the underground, but they certainly knew about me. Since that time, I've had people express sincere admiration for my novels, and then, in almost the same breath, brag to me about breaking into hospital computers to chortle over confidential medical reports about herpes victims.

The single most stinging example of this syndrome is "Pengo," a member of the German hacker-group that broke into Internet computers while in the pay of the KGB. He told German police, and the judge at the trial of his co-conspirators, that he was inspired by NEUROMANCER and John Brunner's SHOCKWAVE RIDER.

I didn't write NEUROMANCER. I did, however, read it in manuscript and offered many purportedly helpful comments. I praised the book publicly and repeatedly and at length. I've done everything I can to get people to read this book.

I don't recall cautioning Gibson that his novel might lead to anarchist hackers selling their expertise to the ferocious and repulsive apparat that gave the world the Lubyanka and the Gulag Archipelago. I don't think I could have issued any such caution, even if I'd felt the danger of such a possibility, which I didn't. I still don't know in what fashion Gibson might have changed his book to avoid inciting evildoers, while still retaining the integrity of his vision -- the very quality about the book that makes it compelling and worthwhile.

This leads me to my first statements of moral principle.

As a "cyberpunk" SF writer, I am not responsible for every act committed by a Bohemian with a computer. I don't own the word "cyberpunk" and cannot help where it is bestowed, or who uses it, or to what ends.

As a science fiction writer, it is not my business to make people behave. It is my business to make people imagine. I cannot control other people's imaginations -- any more than I would allow them to control mine.

I am, however, morally obliged to speak out when acts of evil are committed that use my ideas or my rhetoric, however distantly, as a justification.

Pengo and his friends committed a grave crime that was worthy of condemnation and punishment. They were clever, but treacherously clever. They were imaginative, but it was imagination in a bad cause. They were technically accomplished, but they abused their expertise for illicit profit and to feed their egos. They may be "cyberpunks" -- according to many, they may deserve that title far more than I do -- but they're no friends of mine.

What is "crime"? What is a moral offense? What actions are evil and dishonorable? I find these extraordinarily difficult questions. I have no special status that should allow me to speak with authority on such subjects. Quite the contrary. As a writer in a scorned popular literature and a self-professed eccentric Bohemian, I have next to no authority of any kind. I'm not a moralist, philosopher, or prophet. I've always considered my "moral role," such as it is, to be that of a court jester -- a person sometimes allowed to speak the unspeakable, to explore ideas and issues in a format where they can be treated as games, thought-experiments, or metaphors, not as prescriptions, laws, or sermons.

I have no religion, no sacred scripture to guide my actions and provide an infallible moral bedrock. I'm not seeking political responsibilities or the power of public office. I habitually question any pronouncement of authority, and entertain the liveliest skepticism about the processes of law and justice. I feel no urge to conform to the behavior of the majority of my fellow citizens. I'm a pain in the neck.

My behavior is far from flawless. I lived and thrived in Austin, Texas in the 1970s and 1980s, in a festering milieu of arty crypto-intellectual hippies. I've committed countless "crimes," like millions of other people in my generation. These crimes were of the glamorous "victimless" variety, but they would surely have served to put me in prison had I done them, say, in front of the State Legislature.

Had I lived a hundred years ago as I live today, I would probably have been lynched by outraged fellow Texans as a moral abomination. If I lived in Iran today and wrote and thought as I do, I would probably be tried and executed.

As far as I can tell, moral relativism is a fact of life. I think it might be possible to outwardly conform to every jot and tittle of the taboos of one's society, while feeling no emotional or intellectual

commitment to them. I understand that certain philosophers have argued that this is morally proper behavior for a good citizen. But I can't live that life. I feel, sincerely, that my society is engaged in many actions which are foolish and shortsighted and likely to lead to our destruction. I feel that our society must change, and change radically, in a process that will cause great damage to our present system of values. This doesn't excuse my own failings, which I regret, but it does explain, I hope, why my lifestyle and my actions are not likely to make authority feel entirely comfortable.

Knowledge is power. The rise of computer networking, of the Information Society, is doing strange and disruptive things to the processes by which power and knowledge are currently distributed. Knowledge and information, supplied through these new conduits, are highly corrosive to the status quo. People living in the midst of technological revolution are living outside the law: not necessarily because they mean to break laws, but because the laws are vague, obsolete, overbroad, draconian, or unenforceable. Hackers break laws as a matter of course, and some have been punished unduly for relatively minor infractions not motivated by malice. Even computer police, seeking earnestly to apprehend and punish wrongdoers, have been accused of abuse of their offices, and of violation of the Constitution and the civil statutes. These police may indeed have committed these "crimes." Some officials have already suffered grave damage to their reputations and careers -- all the time convinced that they were morally in the right; and, like the hackers they pursued, never feeling any genuine sense of shame, remorse, or guilt.

I have lived, and still live, in a counterculture, with its own system of values. Counterculture -- Bohemia -- is never far from criminality. "To live outside the law you must be honest" was Bob Dylan's classic hippie motto. A Bohemian finds romance in the notion that "his clothes are dirty but his hands are clean." But there's danger in setting aside the strictures of the law to linchpin one's honor on one's personal integrity. If you throw away the rulebook to rely on your individual conscience you will be put in the way of temptation.

And temptation is a burden. It hurts. It is grotesquely easy to justify, to rationalize, an action of which one should properly be ashamed. In investigating the milieu of computer-crime I have come into contact with a world of temptation formerly closed to me. Nowadays, it would take no great effort on my part to break into computers, to steal long-distance telephone service, to ingratiate myself with people who would merrily supply me with huge amounts of illicitly copied software. I could even build pipe-bombs. I haven't done these things, and disapprove of them; in fact, having come to know these practices better than I cared to, I feel sincere revulsion for

them now. But this knowledge is a kind of power, and power is tempting. Journalistic objectivity, or the urge to play with ideas, cannot entirely protect you. Temptation clings to the mind like a series of small but nagging weights. Carrying these weights may make you stronger. Or they may drag you down.

"His clothes are dirty but his hands are clean." It's a fine ideal, when you can live up to it. Like a lot of Bohemians, I've gazed with a fine disdain on certain people in power whose clothes were clean but their hands conspicuously dirty. But I've also met a few people eager to pat me on the back, whose clothes were dirty and their hands as well. They're not pleasant company.

Somehow one must draw a line. I'm not very good at drawing lines. When other people have drawn me a line, I've generally been quite anxious to have a good long contemplative look at the other side. I don't feel much confidence in my ability to draw these lines. But I feel that I should. The world won't wait. It only took a few guys with poolcues and switchblades to turn Woodstock Nation into Altamont. Haight-Ashbury was once full of people who could trust anyone they'd smoked grass with and love anyone they'd dropped acid with -- for about six months. Soon the place was aswarm with speed-freaks and junkies, and heaven help us if they didn't look just like the love-bead dudes from the League of Spiritual Discovery. Corruption exists, temptation exists. Some people fall. And the temptation is there for all of us, all the time.

I've come to draw a line at money. It's not a good line, but it's something. There are certain activities that are unorthodox, dubious, illegal or quasi-legal, but they might perhaps be justified by an honest person with unconventional standards. But in my opinion, when you're making a commercial living from breaking the law, you're beyond the pale. I find it hard to accept your countercultural sincerity when you're grinning and pocketing the cash, compadre.

I can understand a kid swiping phone service when he's broke, powerless, and dying to explore the new world of the networks. I don't approve of this, but I can understand it. I scorn to do this myself, and I never have; but I don't find it so heinous that it deserves pitiless repression. But if you're stealing phone service and selling it -- if you've made yourself a miniature phone company and you're pimping off the energy of others just to line your own pockets -- you're a thief. When the heat comes to put you away, don't come crying "brother" to me.

If you're creating software and giving it away, you're a fine human being. If you're writing software and letting other people copy it and try it out as shareware, I appreciate your sense of trust, and if I like your work, I'll pay you. If you're copying other people's software

and giving it away, you're damaging other people's interests, and should be ashamed, even if you're posing as a glamorous info-liberating subversive. But if you're copying other people's software and selling it, you're a crook and I despise you.

Writing and spreading viruses is a vile, hurtful, and shameful activity that I unreservedly condemn.

There's something wrong with the Information Society. There's something wrong with the idea that "information" is a commodity like a desk or a chair. There's something wrong with patenting software algorithms. There's something direly meanspirited and ungenerous about inventing a language and then renting it out to other people to speak. There's something unprecedented and sinister in this process of creeping commodification of data and knowledge. A computer is something too close to the human brain for me to rest entirely content with someone patenting or copyrighting the process of its thought. There's something sick and unworkable about an economic system which has already spewed forth such a vast black market. I don't think democracy will thrive in a milieu where vast empires of data are encrypted, restricted, proprietary, confidential, top secret, and sensitive. I fear for the stability of a society that builds sandcastles out of databits and tries to stop a real-world tide with royal commands.

Whole societies can fall. In Eastern Europe we have seen whole nations collapse in a slough of corruption. In pursuit of their unworkable economic doctrine, the Marxists doubled and redoubled their efforts at social control, while losing all sight of the values that make life worth living. At last the entire power structure was so discredited that the last remaining shred of moral integrity could only be found in Bohemia: in dissidents and dramatists and their illegal samizdat underground fanzines. Their clothes were dirty but their hands were clean. The only agitprop poster Vaclav Havel needed was a sign saying *Vaclav Havel Guarantees Free Elections.* He'd never held power, but people believed him, and they believed his Velvet Revolution friends.

I wish there were people in the Computer Revolution who could inspire, and deserved to inspire, that level of trust. I wish there were people in the Electronic Frontier whose moral integrity unquestionably matched the unleashed power of those digital machines. A society is in dire straits when it puts its Bohemia in power. I tremble for my country when I contemplate this prospect. And yet it's possible. If dire straits come, it can even be the last best hope.

The issues that enmeshed me in 1990 are not going to go away. I became involved as a writer and journalist, because I felt it was right. Having made that decision, I intend to stand by my commitment. I

expect to stay involved in these issues, in this debate, for the rest of my life. These are timeless issues: civil rights, knowledge, power, freedom and privacy, the necessary steps that a civilized society must take to protect itself from criminals. There is no finality in politics; it creates itself anew, it must be dealt with every day.

The future is a dark road and our speed is headlong. I didn't ask for power or responsibility. I'm a science fiction writer, I only wanted to play with Big Ideas in my cheerfully lunatic sandbox. What little benefit I myself can contribute to society would likely be best employed in writing better SF novels. I intend to write those better novels, if I can. But in the meantime I seem to have accumulated a few odd shreds of influence. It's a very minor kind of power, and doubtless more than I deserve; but power without responsibility is a monstrous thing.

In writing HACKER CRACKDOWN, I tried to describe the truth as other people saw it. I see it too, with my own eyes, but I can't yet pretend to understand what I'm seeing. The best I can do, it seems to me, is to try to approach the situation as an open-minded person of goodwill. I therefore offer the following final set of principles, which I hope will guide me in the days to come.

I'll listen to anybody, and I'll try to imagine myself in their situation.

I'll assume goodwill on the part of others until they fully earn my distrust.

I won't cherish grudges. I'll forgive those who change their minds and actions, just as I reserve the right to change my own mind and actions.

I'll look hard for the disadvantages to others, in the things that give me advantage. I won't assume that the way I live today is the natural order of the universe, just because I happen to be benefiting from it at the moment.

And while I don't plan to give up making money from my ethically dubious cyberpunk activities, I hope to temper my impropriety by giving more work away for no money at all.

CATSCAN 11 "Sneaking For Jesus 2001"

Conspiracy fiction. I've come across a pair of especially remarkable works in this odd subgenre lately.

Paul Di Filippo's treatment of the conspiracy subgenre, " My Brain Feels Like A Bomb" in SF EYE 8, collected some fine, colorful specimens. Di Filippo theorizes that the conspiracy subgenre, anchored at its high end by GRAVITY'S RAINBOW and FOUCAULT'S PENDULUM and at its low end by quite a lot of cheesy sci-fi and gooofy spy thrillers, is unique to the twentieth-century, and bred by our modern (postmodern?) inability to make sense of an overwhelming flow of high-velocity information.

This may be true. I'm not inclined to challenge that sociological assessment, and can even offer some backup evidence. Where is that postmodern flow of information more intense, and less basically comprehensible, than in the world of computing? Thus is bred the interesting sub-subgenre of computer paranoia fiction -- hacker conspiracy! I now propose to examine two such works: the movie (and book) SNEAKERS, and the novel (and prophesy?) THE ILLUMINATI.

Let's take the second item first, as it's much the more remarkable of the two. The ILLUMINATI in question today has nothing to do with the Robert Anton Wilson ILLUMINATI series; in fact, its weltanschauung is utterly at odds with Wilson's books. Wilson's paranoid yarn is basically a long, rambling, crypto-erudite hipster rap-session, but Larry Burkett's ILLUMINATI is a fictional work of evangelical Christian exegesis, in which lesbians, leftists, dope addicts and other tools of Satan establish a gigantic government computer network in the year 2001, with which to exterminate all Southern Baptists.

I recommend this novel highly. Larry Burkett's ILLUMINATI has already sold some 100,000 copies through Christian bookstores, and it seems to me to have tremendous crossover potential for hundreds of chuckling cyberpunk cynics. To my eye it's a lot more mind-blowing than any of Wilson's books.

The Robert Anton Wilson oeuvre is perenially in print in New Age bookstores, and quite well known in the SF category racks. Therefore the CATSCAN reader may already be aware that the so-called "Illuminati" were a freethinking secret society purportedly founded in the 1770s, who had something to do with Freemasonry and were opposed to established Church authority in Europe.

So far, so good. It's not surprising that a with-it hipster dude like

R.A. Wilson would use the historical Illuminati as a head-trip springboard to mock All Things Establishment. The far more surprising matter is that some evangelical Christians, such as the Reverend Pat Robertson, not only take the 217-year-old and extremely dead Illuminati seriously, but are also currently dominating the social agenda of the Republican Party. Reverend Robertson's latest "non-fiction" tome, THE NEW WORLD ORDER, is chock-a-block with straightfaced and utterly paranoiac Illuminati-under-the-bed terrormongering. Robertson publicly credits the "satanic" Illuminati conspiracy with direct authorship of the French Revolution and the Bolshevik uprising, as well as sponsorship of the Trilateral Commission and the comsymp "Eastern Establishment" generally. The good Reverend also expresses the gravest possible reservations about the occult Masonic insignia on the back of the one-dollar bill.

George Bush himself, best-known public advocate of a "New World Order," is cast under suspicion in Robertson's work as an Illuminati tool, and yet Bush gave his accuser prime-time TV in his party's National Convention. One can only marvel!

As a comparative reality-check, try and imagine Robert Anton Wilson delivering his Hail Eris rap at a Democratic Party Convention (while the audience, nodding on national television, listens in sober respect and acts really glad to be clued-in). Odd enough for you? Now imagine ontological anarchists re-writing the Democratic Party platform on abortion, sexual behavior, and federal sponsorship of the arts.

Larry Burkett has taken this way-out sectarian extremist theo-gibberish and made it into a techno-thriller! The result is a true mutant among novels. How many science fiction novels begin with a disclaimer like this one?

"My biggest concern in writing a novel is that someone may read too much into it. Obviously, I tried to use as realistic a scenario as possible in the story. But it is purely fictional, including the characters, events, and timing. It should not be assumed that it is prophetic in any regard. As best I know, I have a gift for teaching, a talent for writing, and no prophetic abilities beyond that of any other Christian."

I was so impressed by this remarkable disclaimer of Mr Burkett's that I tracked down his address (using the CompuServe computer network) and I succeeded in interviewing him by phone for this column. I learned that Mr Burkett has received some six thousand letters about his novel ILLUMINATI from eager readers, many of them previously aware of the Illuminati menace and eager to learn yet more. And yes, many of those readers do believe that the Mr. Burkett novel is an inspired prophecy, despite his disclaimer, and they

demand his advice on how to shelter themselves from the secret masters of the coming Satanic computer-cataclysm.

Even more remarkably, a dozen correspondents claimed to have once been Illuminati themselves, and they congratulated Mr. Burkett on his insights into their conspiracy! Mr. Burkett described this last category as featuring "three or four letters that were fairly lucid."

Mr. Burkett himself seems quite lucid. He was clearly "having some fun" with notions he considers serious but not all *that* serious, and in this he is not much different from many other SF authors with active imaginations and vaguely politicized concerns. Now a financial consultant, Mr. Burkett was once a NASA project manager, and dealt with early mainframe systems for the Gemini and Mercury missions. As a father, grandfather, best-selling author and head of a successful investment-counseling firm, Mr. Burkett seemed to me to have at least as firm a grip on consensus reality as say, Ross Perot. In talking to Mr Burkett I found him a calm, open and congenial gentleman.

However, Mr. Burkett is also a committed "dispensational Christian" and he believes sincerely that abortion is an act of murder. He is therefore living in a basically nightmarish society in which hundreds of thousands of innocent human beings are gruesomely murdered through no fault of their own. I believe that Mr. Burkett considers abortion so great an evil that it could not possibly have been inflicted on our society by any merely human agency. It can only be understood as part of an ancient, multi-generational conspiracy, planned and carried out by the immortal and evil Adversary of Mankind through his mortal cats-paws on Earth.

From the pyramid-eye point of view of this belief-system, it makes good tub-thumping common-sense to assume that "Secular Humanism" is a single monolithic entity -- even if its own useful-idiot liberal dupes seem more-or-less unaware of their own true roles in Satan's master-plan.

All enemies are agents willy-nilly of The Enemy, and their plans run toward a single end: the establishment of Satan's Kingdom on Earth. In the words of Reverend Robertson (NEW WORLD ORDER p 6): "A single thread runs form the White House to the State Department to the Council on Foreign Relations to the Trilateral Commission to secret societies to extreme New Agers. There must be a new world order. It must eliminate national sovereignty. There must be world government, a world police force, world courts, world banking and currency, and a world elite in charge of it all."

Of course, if you are going to string all important global events onto "a single thread," you are going to end up with an extremely variegated necklace. When you formally assemble the whole farrago into the pages of a thriller-novel, as Mr. Burkett does, the result is like

Lovecraft on laughing-gas. Mr. Burkett's fictional technique owes far more to his favorite authors, Tom Clancy and Michael Crichton, than it does to any genre SF writer. Mr Burkett is not himself an SF reader. Nevertheless, his material itself is so inherently over-the-top that his book resembles the Call of Cthulhu far more than a hunt for Red October.

The pace is whiplash-fast and the set-up entirely mindboggling. In the year 2001, the President, an Illuminati puppet "liberal," stages a coup against Congress in the midst of economic collapse and massive urban riots. The Mossad are bugging the White House and building a cobalt super-bomb with the Red Chinese. We learn that the Illuminati began as Druids and transmuted into Freemasons; the wily Jews, of course, have known all about the Illuminati for centuries, though never bothering to inform us goyim. The gay Governor of California is a feminist church-taxing coke addict. The "liberal" President sells "brain-dead" crack babies to fetal-tissue medical entrepreneurs. Meanwhile, evil liberal civil-libertarians tattoo everyone's right hand with the scanner-code of the Beast 666. It just goes on and on!

The yummiest item in the whole stew, however, is the identity of the book's hero, one Jeff Wells. Jeff's a computer hacker. A genius hacker for Christ. Somewhat against his will and entirely without any evil intent, Jeff was recruited to design and build the gigantic Data-Net financial network, which the Illuminati secular one-worlders then use to consolidate power, and to pursue and harass innocent Christian activists. When Jeff discovers that the feds are using his handiwork to round up Baptists and ship them by the trainload to dismal gulags in Arizona, he drops out of the system, goes deep underground, and joins the Christian revolutionary right.

With the moral guidance of a saintly televangelist, Jeff, using his powerful and extremely illegal computer-intrusion skills, simply chops up Data-Net like a cook deboning a chicken. In defence of his Savior, Jeff basically overthrows the US Government by digital force and violence. He defrauds the government of billions of dollars. He creates thousands of false identities. He deliberately snarls train traffic and airport traffic. He spies on high government officials, tracking their every move. The Pentagon, the Secret Service and the FBI are all rendered into helpless fools through Jeff's skillful tapping of a keyboard. It's like a Smash-the-State Yippie phone-phreak's wet-dream -- and yet it's all done in defense of family-values.

One shuts Mr. Burkett's book regretfully and with a skull-tingling sensation of genuine mind-expansion.

But let's now leave ILLUMINATI for a look at somewhat more actual and far more commercially successful Yippie phone-phreak wet-dream, the film (and novel) SNEAKERS. As it happens, the movie tie-

in novel SNEAKERS (by one "Dewey Gram," a name that sounds rather suspicious) is somewhat uninspired and pedestrian (especially in comparison to ILLUMINATI). The book has a slightly more graphic sexual-voyeur sequence than the movie does, and some mildly interesting additional background about the characters. The SNEAKERS novel seems to have been cooked-up from an earlier screenplay than the shooting-script. You won't miss much by skipping it entirely.

The sinister Liberal Cultural Elite (and their vile Illuminati puppet-masters) must take great satisfaction in comparing the audience for a Hollywood blockbuster like SNEAKERS with the relatively tiny readership for the eager though amateurish ILLUMINATI. ILLUMINATI was written in eight weeks flat, and will have a devil of a time reaching anybody outside an evangelical chain-store. SNEAKERS, by contrast, cost millions to make, and has glossy posters, promo lapel buttons, pre-release screenings, TV ads, and a video release on the way, not to mention its own book tie-in.

SNEAKERS will also be watched with a straight face and genuine enjoyment by millions of Americans, despite its "radical" attitude and its open sympathies with 60s New Leftist activism. ILLUMINATI will have no such luck. Even after twelve solid years of Reaganism, in which the federal government was essentially run by panic-stricken astrologers and the Republican Party kowtowed utterly to its fringe-nut element, it's still unthinkable that a work like ILLUMINATI could become a mainline Hollywood film. Even as a work of science fiction, ILLUMINATI would simply be laughed off the screen by the public. Even R. A. Wilson's ILLUMINATI would have a better chance at production. Margaret Atwood's HANDMAID'S TALE, which promotes anti-network paranoia from a decidedly leftist/feminist perspective, actually made it to the screen! The Burkett ILLUMINATI's theocratic nuttiness is simply too ludicrous.

SNEAKERS is a professional piece of Hollywood entertainment and a pleasant movie to watch. I'm not one of those who feels that Hollywood movies should be required to teach moral lessons, or to heighten public taste, even to make basic sense. Hey, let Hollywood be Hollywood: SNEAKERS has some nice production values, a solid cast, some thrills and some laughs; money spent seeing it is money well spent.

And yet there's a lot to dislike about SNEAKERS anyhow. The entire effort has a depressing insincerity, and a profound sense of desperation and defeat that it tries to offset with an annoying nervous-tic mockery. The problem resides in the very nature of the characters and their milieu. It's certainly an above-average cast, with Sidney Poitier, Robert Redford, Dan Aykroyd and River Phoenix, who are as

professionally endearing and charismatic as they can manage. Yet almost everything these characters actually do is deceitful, repulsive, or basically beside the point; they seem powerless, hopeless, and robbed of their own identities, robbed of legitimacy, even robbed of their very lives.

SNEAKERS is remarkable for its fidelity to the ethos of the computer underground. It's something of a love-note to the 2600 crowd (who seem properly appreciative). System-cracker practices like trashing, canning, and social-engineering are faithfully portrayed. And while SNEAKERS is remarkably paranoid, that too rather suits its own milieu, because many underground hackers are in fact remarkably paranoid, especially about the NSA, other techie feds, and their fellow hackers.

Hacking complex computer systems from the outside -- maintaining a toehold within machinery that doesn't belong to you and is not obedient to your own purposes -- tends by its nature to lead to a rather fragmentary understanding. This fragmentary knowledge, combined with guilty fear, is a perfect psychological breeding-ground for a deeply paranoid outlook. Knowledge underground takes the form of a hipster's argot, rules of thumb, and superstitious ritual, combined with large amounts of practised deceit. And that's the way the SNEAKERS cast basically spend their lives: in pretense and deception, profoundly disenchanted and utterly disenfranchised. Basically, not one person among them can be trusted with a burnt-out match. Even their "robberies" are fakes; they lie even to one another, and they risk their lives, and other people's, for peanuts.

SNEAKERS, in which anagrams play a large thematic role, is itself an anagram for NSA REEKS. The National Security Agency is the largest target for the vaguely-leftist, antiauthoritarian paranoia expressed by the film. The film's sinister McGuffin is an NSA-built super-decryptor device. (This super-decryptor is a somewhat silly gimmick, but that shouldn't be allowed to spoil the story. Real cryptography enthusiasts will probably be too busy laughing at the decryptor's mad-genius inventor, a raunchy parody of real-life cryptographer Whitfield Diffie.) The IRS, though never mentioned overtly, also comes in for some tangential attack, since the phone number of one of the IRS's California offices is given out verbally during the film by an attractive young woman, who claims that it's her home phone number. This deliberate bit of mischief must have guaranteed the IRS a lot of eager phone-phreak action.

Every conspiracy must have a Them. In the black-and-white world of ILLUMINATI, all forms of opposition to Goodness must be cut from the same Satanic cloth, so that Aleister Crowley, Vladimir Lenin and David Rockefeller are all of one warp and woof. SNEAKERS, by

contrast, is slightly more advanced, and features two distinct species of Them. The first Them is the Hippie-Sold-Out Them, a goofy role gamely played by Ben Kingsley as a Darkside Yuppie Hacker Mafioso, a kind of carnivorous forty-something Bill Gates. The second species of Them is the enonymously reeking NSA, the American shadow-spook elite, surprisingly personified by a patriarchal James Earl Jones in an oddly comic and comforting Wizard of Oz-like cameo.

Both these Thems are successfully fooled by the clever Sneakers in bits of Hollywood business that basically wouldn't deceive a bright five-year-old, much less the world's foremost technical espionage agency and a security-mad criminal zillionaire.

But these plot flaws are no real objection. A more genuine objection would be the entire tenor of the film. The film basically accomplishes nothing. Nothing actually happens. No one has to change their mind about anything. At the end, the Hacker Mafioso is left at large, still in power, still psychotic, and still in command of huge sums and vast archives of illicit knowledge and skill. The NSA, distributing a few cheap bribes, simply swears everybody to secrecy, and retreats safely back into the utter undisturbed silence of its Cold War netherworld. A few large issues are raised tangentially, but absolutely nothing is done about them, and no moral judgements or decisions are made. The frenetic plotting of the Sneaker team accomplishes nothing whatsoever beyond a maintenance of the status quo and the winning of a few toys for the personnel. Redford doesn't even win the token girl. It seems much ado about desperately little.

Then, at the very end, our hero robs the Republican Party of all its money through computer-fraud, and distributes it to worthy left-wing causes. Here something has actually happened at last, but it's a dismal and stupid thing. It's profoundly undemocratic, elitist, and hateful act; only a political idiot could imagine that a crime of this nature would do a minute's worth of real good. And even this psychotic provocation has the look of a last-minute tag-on to the movie; in the book, it doesn't even occur.

The film makes two stabs at Big Message. There's a deliberate and much-emphasized Lecture at the Foot of the Cray, where the evil Darkside Hacker explains in slow and careful capital letters that the world in the 90s has become an Information Society and has thus become vulnerable to new and suspiciously invisible forms of manipulation. Beyond a momentary spasm of purely intellectual interest, though, our hero's basic response is a simple "I know. And I don't care." This surprisingly sensible remark much deflates the impact of the superhacker-paranoia scenario.

The second Big Message occurs during a ridiculously convenient escape-scene in which our hero defies the Darkside Hacker to kill him

face-to-face. The bad-guy, forced to look deep inside his own tortured soul, can't endure the moral responsibility involved in pulling a trigger personally. The clear implication is that sooner or later somebody has to take a definite and personal responsibility for all this abstract technologized evil. Unfortunately this is sheer romantic hippie nonsense; even Adolf Eichmann has it figured that it was all somebody else's fault. The twentieth century's big-time evils consisted of people pushing papers in a distant office causing other people to die miles away at the hands of dazed functionaries. Tomorrow's button-pushers are likely to be more remote and insulated than ever; they're not going to be worrying much about their cop-outs and their karma.

SNEAKERS plays paranoia for slapstick laughs in the character of Dan Aykroyd, who utters a wide variety of the standard Space-Brother nutty notions, none of them with any practical implications whatsoever. This may be the worst and most discouraging aspect of the conspiratorial mindset -- the way it simultaneously flatters one's own importance and also makes one willing to do nothing practical and tangible. The conspiracy theorist has got it all figured, he's got the inside angles, and yet he has the perfect excuse for utter cynical torpor.

Let's just consider the real-world implications of genuine conspiratorial convictions for a moment. Let's assume, as many people do, that John Kennedy really was shot dead in a 'silent coup' by a US government cabal in 1963. If this is true, then we Americans clearly haven't run our own national affairs for at least thirty years. Our executive, our Congress, our police and our bureaucracies have all been a fraud in the hands of elite and murderous secret masters. But if we're not running our own affairs today, and haven't for thirty years, then how the heck are we supposed to start now? Why even try? If the world's fate is ineluctably in the hands of Illuminati, then what real reason do we have to meddle in public matters? Why make our thoughts and ideas heard? Why organize, why discuss public policy, why make budgets, why set priorities, why vote? We'll just get gypped anyhow. We'd all be better off retired, in hiding, underground, in monasteries, in purdah, or dead.

If the NSA's tapping every phone line and reading every license-plate from orbit, then They are basically omniscient. They're watching us every moment -- but why do they bother? What quality, besides our own vanity, would make us important enough to be constantly watched by Secret Masters? After all, it's not like we're actually intending to *accomplish* anything.

Conspiracy is for losers. As conspiracy freaks, by our very nature we'll always live on the outside of where it's Really Happening. That's what justifies our existence and allows us to tell Ourselves apart from

Them. Unlike people in the former Eastern Bloc, who actually were oppressed and monitored by a sinister power-elite, we ourselves will never *become* what's Really Happening, despite our enormous relative advantages. Maybe we can speculate a little together, trade gossip, scare each other silly and swap outlandish bullshit. We can gather up our hacker scrapbooks from the office trash of the Important and Powerful. We can press our noses to the big mirrorglass windows. Maybe it we're especially daring, we can fling a brick through a window late one night and run like hell. That'll prove that we're brave and that we really don't like Them -- though we're not brave enough to replace Them, and we're certainly not brave enough to become Them.

And this would also prove that no sane person would ever trust us with a scintilla of real responsibility or power anyway, over ourselves or anyone else. Because we don't deserve any such power, no matter from what angle of the political spectrum we happen to emerge. Because we've allowed ourselves the ugly luxury of wallowing in an enormous noisome heap of bullshit. And for being so stupid, we deserve whatever we get.

CATSCAN 12 "Return to the Rue Jules Verne"

These people are not my spiritual ancestors. I know my real spiritual ancestors -- they were the Futurians and the Hydra Club. But although these people are a century and a half gone, and further distanced by language, culture and a mighty ocean, something about them -- what they did, what they felt, what they were -- takes me by the throat.

It won't let go. My first Catscan column, "Midnight on the Rue Jules Verne," made much ado of this milieu, and of one of its members, Felix Tournachon (1820-1910). Tournachon, when known at all today, is best-known as "Nadar," a pseudonym he first adopted for his Parisian newspaper work in the 1840s. Nadar was a close friend of the young Jules Verne, and he helped inspire Verne's first blockbuster period techno-thriller, FIVE WEEKS IN A BALLOON.

Nadar and Verne were contemporaries, both of them emigres to Paris with artistic ambitions, a taste for hard work, and a pronounced Bohemian bent. Nadar and Verne further shared an intense interest in geography, mapping, and aviation. Verne's influence on Nadar was slim, but Nadar impressed Verne mightily. Nadar even featured as the hero of one of Verne's best-known novels, FROM THE EARTH TO THE MOON, as the thinly anagrammed "Michael Ardan."

Thanks to the efforts of my good friend Richard Dorsett (a rare book dealer by trade) I have come into possession of a book called simply NADAR, a collection of 359 of Monsieur Tournachon's pioneering nineteenth-century photographs, assembled in 1976 by Nigel Gosling for Alfred A Knopf. I knew that Nadar had been a photographer, among his other pursuits as an aeronaut, journalist, caricaturist, author, man-about-Paris, and sometime inspiration for a prototypical science-fiction writer. But I never realized that Nadar was *this good!*

Nadar's photographic record of his Parisian contemporaries is the most potent and compelling act of social documentation that I've ever seen.

Nadar, and his studio staff, photographed nineteenth- century Parisians by the hundreds, over many decades, first as a hobby, and later as as a highly successful commercial venture. But Nadar had a very special eye for the personalities of his friends -- the notables of Paris, the literati, musicians, poets, critics, and political radicals.

These are the people who invented "la vie de Boheme." They invented the lifestyle of the urban middle-class dropout art-gypsy.

They invented its terminology and its tactics. They brought us the "succes de scandale," the now time-honored tactic of shocking one's audience all the way to the bank. And the "succes d'estime," the edgy and hazardous life of the critics' darling. The doctrine of art for art's sake was theirs too (thank you, Theophile Gautier). And the ever-helpful notion of *epater les bourgeoisie,* an act of consummately modern rebellion which is nevertheless impossible without a bourgeoisie to epater, an act which the bourgeoisie itself has lavishly financed for decades in our culture's premiere example of Aldissian enantiodromia -- the transformation of things into their opposites.

The Paris Bohemians were the first genuine industrial-scale counterculture. This was the culture that created Jules Verne. It deserves a great deal of the credit or blame for origination of the genres of horror, fantasy, and science fiction. It has a legitimate claim on our attention and our loyalties.

Jules Verne enjoys a minor role in this book of Nadar's photographs. Verne is on page 230.

One good look at Verne's perceptive portrait by Nadar is enough to make you understand why Jules became an Amiens city councilman, rather than drinking himself to death or dying of syphilis in approved period Bohemian fashion. Verne was a science fiction writer, and a great one. Anyone reading SF EYE possesses big juicy chunks of Verne's memetics, whether you know it or not. But unlike many of Nadar's other friends -- people such as Proudhon (page 171) and Bakunin (page 175) and Journet (page 127) -- Jules Verne was not a driven maniac. Jules Verne was clearly quite a nice guy. He projects an air of well-nigh Asimovian polymathic jollity. He's having a good time at the Nadar studio; he's had to visit his barber, and he's required to sit still quite a while in a stiff new suit, but you can tell that Verne trusts the man behind the camera, and that he's cherishing a sense of humor about this experience.

This is not a tormented soul, not a man to batter himself to death against brick walls. Jules Verne has the look of a man who has hit four or five brick walls in his past, and then bought a map and a compass and paid some sustained attention to them. He looks like someone you could trust with your car keys.

The perfect complement to Nadar's photography is Jerrold Seigel's *BOHEMIAN PARIS: Culture, Politics, and the Boundaries of Bourgeois Life 1830-1930* (published in 1986). Almost every individual mentioned in Professor Seigel's book had a portrait taken by Nadar. Seigel's is a fine book which I have read several times; I consider it the single most useful book I have ever seen for denizens of a counterculture.

Professor Seigel's book has quite a bit to say about Nadar and his

circle, and about the theory and practice of Bohemianism generally. Professor Seigel's book is especially useful for its thumbnail summary of what might be called the Ten Warning Signs of Bohemianism. According to Seigel, these are:

1. Odd dress.
2. Long hair.
3. Living for the moment.
4. Sexual freedom.
5. Having no stable residence.
6. Radical political enthusiasms.
7. Drink.
8. Drugs.
9. Irregular work patterns.
10. Addiction to nightlife.

As Seigel eloquently demonstrates, these are old qualities. They often seem to be novel and faddish, and are often denounced as horrid, unprecedented and aberrant, but that's because, for some bizarre and poorly explored reason, conventional people are simply unable to pay serious and sustained attention to this kind of behavior. Through some unacknowledged but obviously potent mechanism, industrial society has silently agreed that vast demographic segments of its population will be allowed to live in just this way, blatantly manifesting these highly objectionable attitudes. And yet this activity will never be officially recognized -- it simply isn't "serious." There exists a societal denial- mechanism here, a kind of schism or filter or screen that, to my eye at least, is one of the most intriguing qualities that our society possesses.

In reality, these Ten Warning Signs are every bit as old as industrial society. Slackers, punks, hippies, beatniks, hepcats, Dead End kids, flappers, jazz babies, fin-de-siecle aesthetes, pre-Raphaelites, Bohemians -- this stuff is *old.* People were living a vividly countercultural life in Bohemian Paris when the house in which I'm writing these words was a stomping ground for enormous herds of bison.

Two qualities about Bohemian Paris strike me very powerfully. First, the very aggressive, expansive and ambitious nature of this counterculture. With a few exceptions, the denizens of Bohemian Paris, though small in number, were not people hiding their light under a bushel. Some of them were obscure, and deservedly so, but there was nothing deliberately hermetic about them; much of their lives took place in very public arenas such as cafes, cabarets and theatres. They feuded loudly in the newspapers and journals, and to whatever extent they could, they deliberately manipulated critics, maitresses de salon and other public tastemakers. They bent every

effort to make themselves public figures, and if they achieved fame they used it, to radical ends. Many of them declared themselves ready to take to the streets and literally seize power from the authorities. And thanks to the convulsive nature of 19th-century French politics, many of them actually had the opportunity to try this.

The second remarkable quality about the vie de boheme was its high lethality. This was an era of high death- rates generally, but "living on the edge" before Pasteur was a shockingly risky enterprise. Promiscuous sex was particularly deadly. Bohemia's foremost publicity-man, Henri Murger, died at thirty-eight, complaining weakly of the rotting stench in his room, so far gone from syphilitic paresis that he didn't realize that the stench came from his own flesh. Bohemia's most gifted poet, Charles Baudelaire, was rendered mute by paresis before succumbing at 46. Jules de Goncourt, art critic, journalist, novelist, and diarist succumbed to syphilitic dementia at 40. And then there was the White Plague, tuberculosis, reaping Rachel the great tragedienne as well as the fictional "Mimi," the tragic soubrette of Puccini's opera La Boheme, which was based on the Murger stories, themselves based firmly on Murger's daily life.

If Jerrold Seigel's BOHEMIAN PARIS has a hero, it's Henri Murger, also known as "Henry Murger," who was the first to fictionally treat the Vie de Boheme -- in a series of stories for a radical Paris newspaper marvellously titled *Le Corsaire-Satan.* Nadar also wrote for *Le Corsaire-Satan,* and Nadar photographed Murger in 1854. Murger appears on page 53 as a balding, pop-eyed, bearded and much put-upon chap dressed entirely in black. Besides the syphilis that eventually killed him, Murger also suffered from an odd disease known as purpura which turned his skin quite purple "every week at a regular day and hour." The impact of Nadar's sympathetic portrait is, if anything, intensified by the fact that the collodion surface of the photographic plate has cracked along the bottom, trapping the doomed Murger in a spiderweb of decay.

Murger founded a Bohemian club called the Water- Drinkers. Jules Verne had his own circle, the Eleven Without Women. Victor Hugo led the Cenacle group, and Hugo's disciple Theophile Gautier, a great wellspring of Bohemian attitude, led a successor group called the Petite Cenacle. The Goncourt brothers founded the Magny circle and attended the salon of Princess Mathilde Bonaparte, the premiere aristo bluestocking of the Second Empire. Baudelaire, Gautier and a vicious satirist named Alphonse Karr started the Club des Hashischiens, dabbling in opium and hash in the 1850s.

Groups, clubs, salons and movements were the basic infrastructure of Bohemia. The bonds of counterculture were highly informal, highly personal, highly tribal. It was a tightly-knit society in

which personality loomed large. It was almost possible to make an entire career merely through prolonged and determined hanging-out.

Nadar manifested a positive genius for this sort of activity. In his early years in the 1840s, Nadar oscillated between the literary circles of Murger and Baudelaire. But by 1865, Nadar boasted, probably quite accurately, that he knew 10,000 Parisians personally. Nadar possessed enormous personal charisma; except for his own kin, he apparently never made an enemy, and everyone who ever met him remembered him very well.

Nadar began his Parisian career as a newspaper caricaturist. His caricatures, collected in a whopping tome called NADAR DESSINS ET ECRITS (Paris 1979) show a certain inky liveliness and keen eye for the ludicrous, but he was no Daumier. His career in journalism was highly unstable. Most of the magazines Nadar wrote and cartooned for either collapsed in short order from public disinterest or were shut down by the government for radical sedition. This signally failed to discourage Nadar, however. Around 1850 he hatched a grand scheme to personally document every celebrity in Paris, in a monster project to be called "Pantheon Nadar."

Even with help, it was far beyond his ability to complete this "Pantheon," and the project eventually foundered -- but not before Nadar had met and sketched some 300 prominent literateurs, journalists, critics and tastemakers. He left knowing every last one of them by their first names.

While trying to upgrade the art of caricature to an industrial scale, Nadar, in 1853, stumbled into the dawning world of photography. He originally saw photography as a means of swiftly documenting celebrities for later caricature by hand, but he swiftly realized that he could dump the tiresome ink-work entirely and go straight for real-life portraiture in a glamorous new medium.

Nadar wrote fifteen books, including novels and memoirs, and was a prominent aviation pioneer, but photography proved to be the closest thing he had to a true metier. Though he did patent an artificial lighting system in 1861, Nadar was not a major technical pioneer in photography -- not a Daguerre or a Fox-Talbot. He had contemporary commercial rivals, as well: Antony Adam- Solomon, Pierre Petit, Etienne Cajart, and others.

Nadar's genuine pioneer status lay in his appropriation of this new technology into unexpected contexts. He was the first to take a picture from the air, the first to take a picture underground, the first to take a picture by artificial light.

And he was the first to appropriate this technical innovation and bend it to the purposes of the Bohemian art-world. This was an archetypal case of the Rue Jules Verne finding its own uses for things.

Nadar stated his philosophy of photography in 1856, when he rudely sued his own younger brother for sole ownership of the (now thriving) Nadar photographic atelier trade-name.

"The theory of photography can be learnt in an hour and the elements of practicing in a day.... What cannot be learnt is the sense of light, an artistic feeling.... What can be learnt even less is the moral grasp of the subject -- that instant understanding which puts you in touch with the model, helps you to sum him up, guides you to his habits, his ideas and his character and enables you to produce, not an indifferent reproduction, a matter of routine or accident such as any laboratory assistant could achieve, but a really convincing and sympathetic likeness, an intimate portrait."

It's pleasant to see how this rhetoric works. Theory means little, practice less. Successfully shifting the terms of debate from the technical to the artistic robs actual photographic experts of all their cultural authority. In an instant, the technology's originators dwindle into the miserable nerdish status of the "laboratory assistant."

The crux of photography now becomes a matter of innate talent, a question of personal gifts. Inspiration knows no baud rate. As Nadar remarked later: "In photography as in everything else there are people who know how to see and others who don't even know how to look." This is a splendid kind of audacity, the sign of a subculture which is not beleaguered and defensive but confident, alert and aggressively omnivorous.

It's a mark of Nadar's peculiar genius that he was able to devour photography and thrive while digesting it, rather than recoiling in future shock like his contemporary and close friend Baudelaire. In 1859 Baudelaire wrote a long screed against photography, in which he decried its threat to aesthetics and the avante- garde.

"...(I)t is nonetheless obvious that this industry, by invading the territories of art, has become art's most mortal enemy.... If photography is allowed to supplement art in some of its functions, it will soon have supplanted or corrupted it altogether, thanks to the stupidity of the multitude that is its natural ally."

Baudelaire nevertheless posed for Nadar's camera. In fact Baudelaire admired Nadar very much, aptly describing Nadar as an "astounding example of vitality." Baudelaire's photo is on page 67 and Nadar's portrait of the author of FLOWERS OF EVIL is without any doubt the single most remarkable image in the Nadar collection.

Despite the fact that he has stuffed one mitt into an oversized double-breasted coat in Napoleonic fashion, Baudelaire looks shockingly contemporary. It's a face that you could see tomorrow in SPY or SPIN or INTERVIEW, sharp, slightly contemptuous, utterly self-possessed. The photograph is 1855, two years before the police seizure

and legal condemnation of FLOWERS OF EVIL.

The Goncourt Brothers said that Baudelaire had "the face of a maniac, a voice that cuts like steel." There is no recorded trace of his voice, but the face Nadar preserved for us is indeed maniacal -- which is to say, the face of someone not from the Goncourts' century, but rather from our own. Baudelaire looked like a maniac because he looks just like one of us.

FLOWERS OF EVIL is probably the greatest literary monument of the Paris Bohemia, a book which after 136 years remains in many ways novel, frightening and unsettling. Today it's not the frank eroticism and deliberate blasphemy which disturb -- although "Les Bijoux," a chop-licking description of Baudelaire's mistress lolling around on a divan naked under her stage jewelry, remains remarkably hot and bothersome.

It's not the period elements that sting, but that vibrant underlying mania. Just test the potency of the following lines, an invocation to Death in "Le Voyage," the last poem in Fleurs du Mal:

"O Death, old captain, it is time! Lift anchor!
This land wearies us, o Death, let us set sail!
Even though sky and sea are black as ink,
Our hearts you know are filled with light!
Pour out your poison to strengthen us!
Our brains are so scorched with flame that we want
To plunge to the depths of the abyss, what matter if it be Hell or Heaven?
-- To the bottom of the Unknown to find something *new!*

For all his pop-star world-weary aesthetic posing -- Nadar describes Baudelaire as favoring excessively flared black jackets, red scarves, pink gloves and shoulder- length curling hair -- Baudelaire clearly *meant* this. He'll immolate himself, run any mad risk to break through consensus reality, to smash the ennui of civilization and all mortal limits in the slim hope of achieving some completely unknown form of ontological novelty. This is a junkie's rhetoric, but in an odd and menacing way quite timeless. It's a declaration one might take to heart today just before eating a double-handful of untested smart-drugs, and it could serve just as well as the rhetoric of some 22nd-century posthuman deliberately tweaking his own genetics. In some profound sense, it does not bode well for humanity that we are capable of producing a work like Fleurs du Mal.

"If rape, poison, the dagger, and arson have not yet embroidered their pleasing designs on the banal canvas of our wretched destinies, it's because (alas!) we lack the courage to act otherwise." Put it this way -- this is not the guy to trust with your car keys.

Immediately after Baudelaire's amazing portrait comes another

extremely striking Nadar image. It's a studio nude of Christine Roux, a cafe singer and minor-league courtesan who ran in the Murger circle and was talked out of her clothes by Nadar in 1855. She also features as "Musette" in Murger's *Scenes de la Vie de Boheme,* in which she is the mistress of "Marcel," himself said to be based partially on Nadar. Christine stands in a conventional model's art-posture, weight on one leg, torso slightly twisted, but her face is hidden in the crook of her raised right elbow, rendering her effectively anonymous, a luscious icon for the male gaze.

Murger's fictional treatment of Musette is friendly and tolerant, but more than a little contemptuous. The fictional Musette is the standard hooker with a heart of gold; but Murger's indulgence doesn't hide the fact that the Paris Bohemia was a society that specialized in treating women as hired meat. Here's Nadar himself, a man of wide tolerance, a man of unquestionable psychological insight, describing Baudelaire's favorite mistress, the small-time actress and courtesan Jeanne Duval:

"A tall, almost too tall girl. A negress, or at least a mulatto: whole packets of ricepowder could not bleach the copper of the face, neck and hands. A beautiful creature in fact, of a special beauty which owed nothing to Phidias. A special dish for the ultrarefined palate. Beneath the impetuous luxuriance of her ink-black and curling mane, her eyes, large as soup-plates, seemed blacker still; her nose was small, delicate, the nostrils chiselled with exquisite delicacy; her mouth Egyptian.... the mouth of the Isis of Pompeii, with splendid teeth between prominent and beautifully designed lips. She looked serious, proud, even a bit disdainful. Her figure was long-waisted, graceful and undulating as a snake, and especially remarkable for the exuberant, exceptional development of the breasts. And this abundance, which was not without grace, gave her the look of a branch overloaded with ripe fruit."

Jeanne Duval's sexy as hell. She's a special dish, she's a soup-plate, she's a statue, she's a snake, she's a fruit tree; she's anything but a human being. This is the rhetoric one has to emit in order to treat women the way women were treated in Bohemian Paris. In FLOWERS OF EVIL, Baudelaire gloats over Jeanne Duval with a lipsmacking contempt that is truly painful to witness, declaring her a beast, a tramp, trash, carrion, and then wallowing in her at length. One can't help but conclude that Baudelaire would like Jeanne even better if her head were severed, although that might reduce the ugly satisfaction he takes in blaming her for the existence of his own libido.

Musette, her photo placed rather too aptly on page 69, is a poisoned dish. You have to buy her, and if you catch anything from her, it's as much as your life is worth. There's no birth control to speak

of, so you may well end up supporting bastard children or, worse yet, not supporting them. There will be no meeting of minds here; it's true Musette can sing a bit, but to marry her would be an utter disaster, a mesalliance reducing you to a social laughing-stock. This is skin for money, with a nice brain-eating tang of Russian roulette tossed in for spice. And by the way, it's also a mortal sin, which is no small deal in mid-nineteenth century Catholic France.

Are you really going to do this? Are you going to spend the money to buy Musette, and take that dire risk of all that potential misery and hurt, to yourselves and to her and to your parents and to the next generation, and to God Himself and the Savior and all the saints and angels for that matter, merely in order to emptily and temporarily possess the anonymous female body depicted on page 69?

Fuck yes you are. Of course you are. I mean, just *look* at it!

In the all-too-immortal words of the Brothers Goncourt: "Men like ourselves require a woman with little breeding, small education, gay and natural in spirit, to charm or please us as would an agreeable animal to which we might become attached. But if a mistress had a veneer of breeding, or art, or of literature, and wanted to talk on an equal footing with us about our thoughts and our feeling for beauty; if she were ambitious to become the companion of our taste or of the book gestating within us, she would become for us as unbearable as a piano out of tune -- and very soon antipathetic."

Nadar reports his last view of Jeanne Duval in 1870, her graceful undulating exotic tasty carcass propped on crutches from the ravages of syphilis. Musette died in a shipwreck in 1860, at age 25.

Here's Theophile Gautier on page 113. He was an extremely hip and happening guy, Gautier. There's a lot to be learned from him. He looks very much like a bouncer in a biker bar. This beefy dude is the ultrarefined escapist lily-clutching Romantic aesthete who coined the dictum "only what is useless is beautiful" in his *Mademoiselle Maupin,* one of the great indecent books of the nineteenth century. Gautier was a major pioneer of fantasy as a genre, an arty arch-Romantic who wrote about Orientalism and female vampires and mystically revived female mummies and tasty female succubi who jump off the embroidery in ancient tapestries to fuck the brains out of undergraduate XIXth-cent. lit-majors, and yet Nadar's portrait makes it utterly clear that Gautier is a guy who could swiftly kick the shit out of nine men out of ten.

At age nineteen, Gautier led the howling Romantic contingent at the premiere of Victor Hugo's *Hernani* in 1830, the public brawl that marked the end of NeoClassicism as a theatrical doctrine; and you can see from his portrait that Gautier wasn't doing anything so mild as "marking" the end of classicism, he was publicly breaking its back and

was proud and happy to do it.

Gautier's table-talk is the best stuff in the famously gossipy *Journals* of the Brothers Goncourt. By the 1860s Gautier had become the most powerful critic in Paris; a man who wrote operas and ballets and plays and short stories and novels and travel books and poetry and about a million crap newspaper columns, and yet he found the time to eat hash and dominate salons and throw monster parties at the house of his common-law wife that had, among other attractions, actual Chinese people in them. Gautier was writing for the government organ *Le Moniteur* as a theatre critic and he was the lion of Mathilde Bonaparte's circle, Mathilde being Napoleon III's cousin and the Second Empire's officially sanctioned token bluestocking liberal. Having reached the height of Bohemian public acceptance Gautier ground out his copy in public and in private he lived in open scandal and bitched about the government every chance he got. The stuff he says is unbelievable, it's a cynical head-trip torrent worthy of Philip K. Dick.

Picture this: it's 1860. Civil War is just breaking out in the USA. Meanwhile, Theophile Gautier's at a literary dinner in the rue Taitbout in a sumptuous drawing-room lined with padded pigeon-blood silk. He's drinking twenty-two-year-old champagne and discussing the immortality of the soul. Gautier addresses a right-wing Catholic. "Listen, Claudin, " he says, "assume the Sun was inhabited. A man five feet tall on Earth would be seven hundred and fifty leagues high on the Sun. That is to say, the soles of your shoes, assuming you wore heels, would be two leagues long, a length equal to to the depth of the ocean at its deepest. Now listen to me, Claudin: and along with your two leagues of boot soles you would possess seventy-five leagues of masculinity in the natural state."

Claudin, shocked, babbles something eminently forgettable.

"You see," Gautier continues suavely, "the immortality of the soul, free will -- it is very pleasant to be concerned with these things before one is twenty-two years old; but afterward such subjects are no longer seemly. One ought then to be concerned to have a mistress who does not get on one's nerves; to have a decent place to live; to have a few passable pictures on the wall. And most of all, to be writing well. That is what is important: sentences that hang together... and a few metaphors. Yes, a few metaphors. They embellish life."

Gautier divided his time between the literary salons of Mathilde Bonaparte and La Paiva. La Paiva was a courtesan, a true grande horizontale, a demimondaine who had battled her way to the top through sheer chilly grit and professional self-abnegation. She scared the hell out of the Brothers Goncourt, who paint her as an aberrant harpy, but Mathilde was jealous of her nonetheless, and complained

that the litterateurs made so much of bluestocking demimondaines that the Imperial princess herself felt unlucky not to have been born "a lustful drab."

In the last years of his life -- he died in 1872 -- Gautier took a sinecure as Mathilde's official librarian, something of an apology on her part for not being able to wedge him into the Academy or get him a sinecure post in the Empire's rubber-stamp Senate. Gautier was just that one shade too Bohemian to manage the conventional slate of honors; but he was not quite so Bohemian that he wasn't of real use to Mathilde. Mathilde did not have the direct social power of her cousin's wife, the Empress Eugenie, a woman Mathilde cordially despised; but if Mathilde couldn't have the court painters, the ladies-in-waiting, and the full imperial etiquette, she could nevertheless reign as Queen of Bluestockings over the literary counterculture. Mathilde liked books, she liked painters, she liked music; she was a moderately bright and cultured woman who could follow an intelligent conversation and even lead one sometimes; but she knew how to guard the interests of her family as well. The Goncourts recorded her tantrum as a salon favorite joined the staff of an opposition newspaper.

"He owes everything to me," Mathilde screamed. "And what did I ask in return? I didn't ask him to give up a single conviction. All I asked was that he keep away from those people on the *Temps.*"

The "opposition" established by Mathilde's countercultural noblesse oblige was one of the guises assumed by power itself; to pay off Theophile Gautier was to nourish the serpent to one's bosom in the hope of stroking it to sleep. It was a risky game, but their lives were risky. The cultural Entente Cordiale between the Court and Bohemia didn't have to hold together forever; it only had to hold together long enough. The entire structure of the Empire itself collapsed in 1870, crushed in the Franco-Prussian War.

The street may find its own uses for things -- but Things find their own uses for the street. The Rue Jules Verne is a two-way avenue, a place where monde and undermonde can embrace illicitly and swap infections. While Nadar rose in his balloons to document the city with his cameras, Napoleon III's Parisian prefect, Baron Haussman, demolished and rebuilt the landscape below him. It's thanks to Haussman that we know Paris today as a city of wide, straight, magnificent boulevards -- the Champ d'Elysees is one. For Nadar and his contemporaries the Haussmanization of the city was the truest sign of its modernization. Nadar's photographic studio was located in one of these new streets. He dominated the entire second floor of a new building in the latest taste.

Haussmann's streets were the Rue Jules Verne as a killing ground. Yes they were elegant, yes they aided the flow of traffic, but their true

raison d'etre was as a strategic military asset. In 1789, 1830, 1848 the Parisian populace had barricaded their narrow twisting streets and foiled the Army. After Haussmann, Paris would be splayed-out on a lethal command grid where grapeshot could fly on arrow-straight lines through whole city blocks, directly through the insubordinate carcasses of any revolutionary proletariat.

The streets didn't save the regime, though. In 1870 Bismarck's Germans smashed the French armies at Sedan. Paris was blockaded.

In response, Nadar invented airmail.

In 1859, Napoleon III had offered Nadar 50,000 francs to take aerial photographs of the Italian front in his military adventure in Italy; but Nadar was a staunch radical republican and stoutly refused any bloodmoney from the imperial war-machine. The disaster of 1870 was a different matter. As Nadar explained from Paris, via balloon, to *The Times* in London, destroying the repugnant Imperial regime was one thing, and rather understandable; but killing the Parisian populace wholesale was quite another.

Nadar was normally a highly mannered, rather precious prose stylist, rarely using one word when ten elegantly sesquipedalian ones would do; but with his own people at bayonet-point Nadar apparently concluded that this wasn't the time for copping aesthetic attitudes. Things had reached such a point that Nadar's balloons, which he himself regarded mostly as publicity stunts, were in fact a last hope. He had invented, and owned, the last means by which Paris could publicize herself. Under these circumstances, Nadar addressed humanity at large with as much directness, simplicity, and clarity as he could manage. He lacked official backing -- in the blockade of 1870 there was essentially no government left in Paris -- but what he lacked in authority, he made up in simple eloquence, self-starting nerve, and headline-grabbing novelty.

Nadar's balloon corps didn't make much real military difference. Some were shot down; one was blown off to a fjord in Norway. In any case, balloon traffic could not hope to match the enormous military significance of German railroads.

And yet the balloons were there -- and they could fly. After the debacle of Sedan, Paris had no government, damn little food, no mail, no official backing, and victorious enemy guns on all sides -- but anyone in Paris could see Nadar's balloons. There wasn't much to them, really, other than straw and hot air and an attitude, but they were there, and they were flying. They were energetic, they were optimistic, and they made a bold pretense of practicality. People have died cheerfully for less. It was his finest hour.

Nadar outlived everyone in the Pantheon Nadar. His enormous vitality served him well, and he died two weeks short of his ninetieth

birthday, in 1910. This man, who showed such preternatural insight into other people, was not devoid of self-knowledge. As early as 1864, he described himself well:

"A superficial intelligence which has touched on too many subjects to have allowed time to explore any in depth.... A dare-devil, always on the lookout for currents to swim against, oblivious of public opinion, irreconcileably opposed to any sign of law and order. A jack-of-all-trades who smiles out of one corner of his mouth and snarls with the other, coarse enough to call things by their real names -- and people too -- never one to miss the chance to talk of rope in the house of the hanged man."

Nadar died eighty-three years ago. We have no real right to claim him -- visionary, aesthete, polemicist, Bohemian, technologist -- as a spiritual ancestor.

But it might be a damned good idea to adopt him.

CATSCAN 13 "Electronic Text"

In the mid-1980s I bought a modem and began hanging out on local computer bulletin board systems. I found the practice intriguing. There seemed to be a lot of potential online for interesting new forms of cultural agitation and fanzine work. The proto-Net itself was a remarkable technical innovation; a kind of primal soup of unwritten SF scenarios.

After two years I gave up. E-mail from local bulletin board systems was consuming as much time as my regular printed mail, but my printed mail far outclassed anything I could find electronically. My printed mail was much denser and much more informative than anything available to me online, and my printed mail was arriving from all over the world. Electronic text was like a bowl of homemade soup, but what I required was exotic bouillon cubes shipped in from every corner of the compass.

I was writing quite a bit for online discussion groups, but the effort it took to do this well didn't seem to be well repaid. Printed fanzines and SF magazines offered a larger and more demographically varied audience than the computer enthusiasts on local boards. Time constraints, and the limits of the medium in the mid-80s, forced me off the net.

In 1990, a much larger and vastly more sophisticated Net returned with a vengeance and brusquely thrust its tentacles up through my floorboards. I found it necessary to get back up to speed in a hurry.

I have now been online steadily -- mostly on the WELL, CompuServe, and the Internet -- for three years. I've sampled many other systems -- GEnie, America Online, Delphi, dozens of local boards -- but WELL, CIS and Internet seem to best suit my particular interests and activities. I don't consider myself a netguru, because I've met some actual netgurus, and I know I'm certainly not one, because I don't program. But I enjoy the reputation of a minor netguru because I write for the Net and about the Net. The entire texture of my literary enterprise has been altered, probably permanently, by gopher, ftp, WAIS, World Wide Web, and global e-mail.

I now spend shocking amounts of time online. I used to carry out a wide literary correspondence through the mails. That activity is now near death, replaced by faxes and e-mail. I haven't written a personal letter in months that wasn't to some modem-deprived soul in Britain, Russia, Japan, or Mexico.

On-line, however, I'm very active. During 1993, I accumulated about half a megabyte of e-mail every week. Since the net-release of

the electronic text of my nonfiction book HACKER CRACKDOWN, that rate has more than doubled. I'm getting thirty messages a day.

Most of my traffic, thankfully, is not personal e-mail but electronic magazines. I read a lot of fairly diffuse local discussion from the EFF-Austin board of directors emailing list, but I also read many online publications such as RISKS DIGEST, BITS & BYTES, COMPUTER UNDERGROUND DIGEST, EFFECTOR, PHRACK, and Arthur Kroker's CANADIAN JOURNAL OF POLITICAL AND SOCIAL THEORY.

I spend a great deal of time grappling with these electronic magazines -- these "e-zines." I can't truthfully say I that actually "read" them. I certainly don't read them with the focussed attention that I devote to printed material such as BOARDWATCH or WORLD PRESS REVIEW or BOING BOING.

Of course, it's possible to leaf quickly through a print magazine, and most of the print magazines I receive: SCIENCE, NATURE, SECURITY MANAGEMENT -- receive just that kind of browsing, cursory treatment. But my relationship with electronic text is different -- not just cursory, but cursor-y. I question whether the antique term "reading" is properly applied to the consumption of electronic magazines. Traditionally, reading does not involve scrolling spasmodically down, and occasionally back up, through an endless piano-player roll of intangible verbiage. Electronic text lacks the ritual, sensual elements of print publication: back covers, front covers, typography, italics, convenient stopping places, an impending sense of completion -- what one might call the body language of the printed text. The loss of these sensory clues has subtle but profound effects on one's dealings with the text.

I now spend about as much time reading -- or perhaps "scrolling" is the proper term -- e-zines as I do reading printed magazines. I've become dependent on e- zines. I scarcely see how I got along in life before electronically subscribing to COMPUTER UNDERGROUND DIGEST. This compendium of unorthodox computer activities now seems to me a vital part of the mental armamentarium of every serious-minded adult. The same goes for RISKS DIGEST, that startling assemblage of bizarre engineering anecdotes from all over the planet, concerning "risks to the public in computers and related systems." Reading RISKS is wonderfully revelatory, much like having the Wizard of Oz invite you behind the curtain to confidentially bitch at length that the giant brass bowls of flame have given him emphysema.

It's easy to see the advantages of e-zines. First, subscriptions are free (if you discount the cost of the equipment, that is). Second, as long as you have room on your hard disk, e-zines are easy to store and don't wrinkle or rot. Third, with the proper software, you can word-search all the back issues at once. Fourth, you can give e-zines away

to all and sundry at little or no cost and without losing your own copies.

The disadvantages, which are grave, take longer to dawn on you. First, since e-zines don't generate any revenue for the editor or staffers, they remain hobbyist activities. True, the perks of not-for-profit fanzine publication can be very considerable. Jim Thomas and Gordon Meyer, the editors of CuD, have over 80,000 readers, the functional equivalent of a private intelligence network tirelessly investigating the global hacker scene. Jim Thomas and Gordon Meyer are heavy-duty smoffing cybergurus, but CUD nevertheless doesn't make any actual money. The publication is mostly written by its own readers, edited, collated and distributed by Thomas and Meyer. Since CuD lacks serious investigative resources, it can't carry out direct journalistic muckraking. Nor can CuD garner and compile useful statistics from original sources. It's even questionable whether any "e-zine" can depend on First Amendment protection, or on Constitutional freedom for its nonexistent "press."

The same operational difficulties apply to the somewhat more sober RISKS DIGEST. Although RISKS is backed by the venerable and respectable Association for Computing Machinery, it too is an edited compilation of comments from its readership. RISKS often reads more like a lettercol than a publication. And like letter columns everywhere, the reader-written e-zine tends to attract monomaniacs with an axe to grind.

E-zines are easy to store; but also easy to ignore. If you have received an e-zine and successfully stuffed it into a desktop folder somewhere, you somehow feel as if you've successfully dealt with it, whether you've actually read the words in it or not. You can always "get back to it later," although that "later" rarely comes. When you are wrapped in the utter immediacy of an electronic text, the very idea of a "past" is suspect. Instead, you save your mental energy for the deluge of incoming data still lurking there invisibly at the edge of the screen.

E-zines aren't magazines. If they *were* magazines, there would be no conceivable need for print magazines such as BOARDWATCH or INTERNET WORLD or MORPH'S OUTPOST ON THE DIGITAL FRONTIER, and yet print magazines about electronic networks seem to be expanding almost as quickly as the Internet itself. What's more, the print magazines are a lot more fun to read than most of the Internet is.

Word-searching electronic text is a very useful activity, but electronic sieves are peculiarly leaky. Keywording, grepping and such leads to an odd phenomenon: database blindness. If you look up, for instance, the term "toll fraud" on a computer system stuffed with back issues of COMPUTER UNDERGROUND DIGEST, you may come up

with an enormous number of responses: say, 4,376 hits. This fantastic bounty of information makes you feel that you must surely have the whole phenomenon well in hand, and therefore need look no further. In point of fact, you can't even manage successfully to fully study the 4,376 electronic references you already have. After thrashing around a bit, you'll settle for a few pebbles off what seems to be a vast Newtonian ocean of information.

In reality, however, much vaster resources of untapped information still exist -- whole alternate oceans. There may, for instance be dozens of articles about the same activity which never use the term "toll fraud." Other sources may treat the subject matter from a radically different point of view. Mired in your instant and easy access, you may not ever see other sources, or even think to look for them.

Copying electronic text is a very simple matter. It's even simpler than copying software, and people feel far less compunction about copying text than they do about software piracy. In my opinion, no textual disclaimers about "site licenses" or "copyright" can stop people from swiftly cutting-and-pasting some bit of juicy gossip and electronically passing or faxing it to a friend. Even the armed might and omnipresent wiretaps of the KGB or the Romanian Securitate couldn't stop street gossip. Giving the reader the powers of editor, publisher and distributor turns all electronic text into potential street gossip.

This fog, this unstoppable miasma of info, may be bad news for tyrants -- or at least for tyrants of an older and creakier breed, anyhow. But no silver lining comes without a cloud. The confidentiality and accuracy of electronic text -- whether private e-mail or a general publication -- cannot be trusted. Even encrypting one's e-mail, a practice growing in popularity, won't stop the receiver from decrypting it, reading the plaintext, and *then* tampering with it and spreading the news to anyone he chooses. Expecting electronic text to retain its form and remain within a narrow channel is like trying to ink a fine line on a paper towel. Everything blots and spreads.

As a corollary, if you have a wide circle of acquaintance in cyberspace -- and a narrow circle of acquaintance isn't much use -- then you are likely to receive the same breaking news fifteen or twenty times through fifteen or twenty different sources. This is annoying. It also tends to overwhelm your native incredulity, for even the goofiest fifth-hand rumor no longer seems incredible if it's repeated fifteen times.

As it travels from hand to hand, electronic text can become corrupted. It's amazing, really, how little deliberate forgery goes on --

it would seem absurdly easy to invent horribly incriminating diatribes and pass them off as the work of others, and yet I've never known this to happen. However, a lot of "editing" of other people's electronic text does goes on, usually well-meant, but often destructive of context and sense.

Let's turn to the pressing peculiarities of online discussion groups and bulletin board systems. "Discussions" on bulletin board systems bear even less relation to actual conversation than e-zines do to actual magazines. I offer as evidence the puzzling fact that there has never been an online discussion of science fiction one tenth so enlightening and interesting as hanging out in the corner of Kate 'n' Damon's living room. In fact, I've never found an online "discussion" of science fiction that was even as tepidly interesting as the usual SFFWA suite at a regional convention. The closest the online world comes to a workable discussion of science fiction is the blather on GEnie, which is as paralyzingly tedious as the SFWA BULLETIN, *without the editing.* And while SF writers spawn like salmon out of regional writing scenes, I'm unaware of any who have emerged from an entirely online writers' circle. There may be some -- I've been expecting them for years -- but I've never seen any. I question whether it's possible.

Since there is no lack of science fiction fans and writers online, and since people online are no stupider than people offline, I attribute this lifelessness in SF online discussion to the inherent limits of the medium. Bulletin board services are best suited to bulletins. They serve best in distributing brief bits of commentary that could fit snugly on a 3X5 index card. In an ongoing bulletin board flurry of commentary, any piece of text longer than a couple of screens produces headachy impatience and a kind of vertigo. Encountering a serious, well-reasoned essay in the flow of more-or-less idle chatter produces an effect like a jetskier hitting an iceberg.

Bulletin boards excel at minor aspects of social housekeeping, such as swapping addresses, spreading headlines, breeding rumors, and, especially, exchanging insults. Bulletin board messages are not genuinely epistolary in nature. They are better compared to answering machine messages, CB radio squibs, souvenir postcards, or stand-up comedy performance complete with hecklers.

This brings us to the matter of "flaming," those sudden eruptions of ranting ill-will so common online. Many online veterans declare flaming to be "juvenile." Flaming, however, knows no age group. Flamers do tend to tone it down after a while, but it's not because of their growing emotional maturity. It's because they've become inured to the socially ulcerating, inherent constraints of the medium. And it's surprising how often a livid, ranting, hateful flame will burst from some previously somnolent user, someone with a lot of experience

who seemingly ought to know better.

In many ways it's a source of raw astonishment that anything even resembling a polite community can exist among anonymous strangers who are swapping electronic text on screens. This is social interaction with a desperate flatness of affect. There's no voice, no pitch, stress, timing or emphasis in online commentary. There's no body language, no sight, smell, or touch, no pheromones, no breath of life. The best emotional signal one can send online is the skeletal revenant of a disarming smile: the graphically repugnant "emoticon": :-)

There's supposed to be a lot of difference between the hurtful online statement "You're a moron," and the tastefully facetious statement "You're a moron :-)". I question whether this is really the case, emoticon or no. And even the emoticon doesn't help much in one's halting interaction with the occasional online stranger who is, in fact, gravely sociopathic. Online communication can wonderfully liberate the tender soul of some well-meaning personage who, for whatever reason, is physically uncharismatic. Unfortunately, online communication also fertilizes the eccentricities of hopeless cranks, who at last find themselves in firm possession of a wondrous soapbox that the Trilateral Commission and the Men In Black had previously denied them.

I've never gotten a piece of hate e-mail. I've never been seriously harassed or threatened by e-mail. I don't understand why not, and in fact I fully expect it to happen someday. In the meantime, as with the rarity of e-forgery, I marvel at the winsome goodwill of the online community.

However, I've gotten quite a lot of e-mail that, by all rights, should have been written in crayon by a person whom a kindly society had deprived of sharp objects. It can often take several exchanges of e-mail to bring forth a realization that would have taken perhaps seven seconds of contact in real life: *this person is unhinged.* The effect can be disquieting. (Actually, in my personal experience it's usually more disquieting for the unhappy wretch e-mailing me, as most amateur madfolk fare rather poorly when exposed to a science fiction professional -- but the general principle still holds.)

E-mail has great immediacy. Its movement is very swift, electronically swift, and yet it does not intrude into the texture of one's life the way a phone call too often does. You read e-mail at a time when you are ready to read it, a time when you are mentally prepared for the experience. This is a very great advantage.

However, there is a subtler time problem with e-mail -- a synchronization problem. If User Able log on every day and User Betty logs on once a week, it peculiarly affects the nature of their online

relationship. For Betty, Able is a steadying, constant presence, someone who "always sends me mail," while for Able, Betty is a spasmodic interloper who always wants to talk about last week's stale news.

The synchrony problem intensifies if User Cecil is widely distributing text files with his e-mail address attached. Now Cecil will get e-mail from all over the world eager to discuss matters he distributed weeks, months, even years ago. This lack of timeliness on the part of the reader is not the readers' fault. Once released, Cecil's texts can be redistributed again and again by anyone who stumbles across them. Worse yet, any clues about the date of their creation are often lost or edited somewhere in the spidery tatters of the distribution network. Cecil's supposedly lightning-swift electronic texts can travel as slowly, unexpectedly and randomly as a messages in bottles.

Another basic temporal difficulty is the performance crunch. If User Betty has to answer 50 pieces of e-mail in an hour and User Able handles only five, no amount of goodwill or eloquence will allow Able and Betty to communicate on equal terms. Able will feel neglected by Betty's brusque and hasty replies; Betty will feel smothered by Able's discursive, insistent meanderings. Eventually they will come to regard one another as exploitative attention-vampires.

Over the past three years, I've made increasing use of the Internet as a vanity press. My CATSCAN columns are available online; so are my F&SF Science columns. I deliberately pitched them overboard into the seas of cyberspace, and the results have been intriguing. While many people online read the CATSCAN columns -- or at least, I know that they download them off the WELL gopher -- I get little direct response from them. Except, that is, for Catscan Ten, "A Statement of Principle," which involved the computer underground. The online response to that particular article was frantic, with e-mail pouring in from Italy, New Zealand, Singapore, Britain and every techie campus in the USA; all in all, I must have gotten five hundred responses.

The response to the Science columns seems to vary in direct proportion to their relevance to computer science. A column about the space program, which got a lot of printed response, aroused very tepid interest online. But my column "Internet" provoked scores of replies, and seems to have an electronic reprint life entirely its own. It keeps re-surfacing again and again, under a variety of titles and often annoyingly "edited."

On New Years Day 1994, I released the entire text of HACKER CRACKDOWN electronically, including a new foreword and afterword.

At first, very little happened, except for large numbers of timid queries from people who wanted to reproduce the text electronically

and were anxious not to be crushed by my publisher. After a month, several of the larger systems had HACKER CRACKDOWN up online and people began to lose their fear. It's now available on the WELL, tic.com, ftp.eff.org., from the Gutenberg Project, and is widely available in Europe. There's a Hypercard version, and a Newton version, and various compacted versions in different data formats, and so forth.

At the moment -- mid-February -- I'm getting three or four direct responses a day, about twenty-five e-mail HACKER fanletters a week. Most of them come from people who say they wanted to buy the printed book but couldn't afford it (teenagers, college students) or who wanted the book but couldn't find it anywhere (Norwegians, Icelanders, Germans, Israelis, vision-impaired online people with electronic readers in their boxes).

I don't know whether distributing the book electronically will damage its commercial prospects as a printed book. People always ask me this question -- as if generating cash-in-hand were my only conceivable reason for writing a book. I doubt there is any real way to judge the effect on sales. The paperback has only been out since November; but even if the print version stopped selling entirely, that wouldn't prove anything. HACKER CRACKDOWN was very topical, involving a contemporary scandal in a community which, though spreading rapidly, is still very limited in scope and influence. Books of that sort tend to have a short shelf-life. In fact, that was the main reason I gave the book away fairly rapidly. There's not much point in giving something away something no longer useful.

I wouldn't recommend that every author should give books away online. It was an experiment on my part, a literateur's way of literarily probing the Net. I do believe that a day must come when online electronic text profoundly changes the structure and economics of print publishing. But I believe that day is still a ways off -- maybe even decades off. The nature of electronic text, and of the networks that distribute it, is so volatile, so full of unknown factors, that I can't make a balanced judgment about the probabilities, and I don't think anyone can. I wouldn't be surprised ten years from now if all books worthy of serious attention were routinely placed on the Internet. And I wouldn't be surprised if the Internet itself ceased to exist and cypherpunks were being grilled in hearings by the House Unamerican Activities Committee circa 2005. The Net could go any of dozens of ways, and though I have some pretty firm ideas of the ways I would like it to go, I don't flatter myself that I have much influence on the vast amoebic movement of this enormous beast.

In the meanwhile, I haven't given away any of my novels, and have no plans to. I might give away a novel on Internet if it seemed a

useful gesture, but it doesn't. Frankly, I doubt whether there is any real interest at all on the Net in science fiction novels, by me or by anyone else -- unless those books are somehow intimately and thoroughly involved with the Net. The Net is interested in the Net -- netspiders are, in that sense, much like ham radio people -- people who bounce signals off the ionosphere all the way to Madagascar so as to ask: "Well - - what kinda hamshack ya got?"

I myself would have next-to-no interest in an SF book online, even if it were free, and the idea of paying for one is ludicrous. I have a free copy of Gibson's Voyager books on disk, and though they're said to be elegant examples of electronic publishing, I can't make the time even to load them into the Macintosh and see how they look. If some other colleague offered a novel online, I'm almost certain that I'd wait for a print version before I read it. I can't say why I feel this peculiar repugnance, really; it may be sheer antiquated nonsense on my part. But it's not a "prejudice" by any means -- it's firmly based on years of hands-on judgement. I don't think novels function as electronic text -- I feel this very strongly, and I think it's a very general opinion. It's something to do with the surround -- with the peculiar sense that while consuming electronic text one is missing certain essential vitamins.

I don't want to read novels while I'm sitting at my desk and staring rigidly into a screen. Laptops are little better; they leave you tethered to a wall and/or worried about your battery. Improving the tech may help -- but enthusiasts have been saying that for years. Better display may only illuminate the deeper discords in the nature of electronic text.

I don't read novels and stories online, but I do scroll through unbelievable amounts of electronic text. The difference is in the material. Electronic text is not literature, it's not even genre literature, it's paraliterature, in the way that electronic "conversation" is a peculiar kind of subsensory perception, a human intercourse so antiseptically safe as to have membraned out the entire human body. Speech and e-text and print are "all words," but only in a very basic sense -- like in the way that ice and steam and water are all H2O.

My relationship to my online readers is a relationship of sorts: a narrow and peculiarly restricted kind of relationship. It's very much like the relationship between an author at a bookstore signing and the line of people with his books. Ninety percent of the people who write me online ask for nothing more than a ritual acknowledgement of their existence. They say "thank you for writing this" and I reply "you're quite welcome" and they depart the electronic premises forever, quite satisfied. It's very much like the bookstore fan who wants his copy of ISLANDS IN THE NET inscribed "To Jim." Not

because he expects me to remember that his name is Jim, or even that I ever met him; what he wants is a ritual validation of his personhood by someone he regards as a celebrity. Nothing wrong with this; it's part of the game, part of society, and e-mail serves this function very well. In fact, as an author I'd have to say that e- mail is the best method I've ever found for dealing with the public.

I have a hard time maintaining friendships via e-mail alone. Though I get a lot of e-mail from friends, I have no sustained relationship with any person whom I've met only by and through e-mail. I've heard of this being done, but I've never done it myself. I uncharitably speculate that it's because I already have a life.

I can already sense the nature of my next major online challenge. I will have to deal with the consequences of a spectacularly growing Internet and my slowly growing notoriety within it. Increasing traffic on the Information Highway is slowly but surely overwhelming me. Lately, I have begun logging onto my home system, the WELL, every day; not by choice but by necessity. I've become much better at online research, and my use of my online time is much more efficient. But there are limits, and the limits are visibly approaching.

I'll never forget the strange chill I felt when I once logged onto the WELL after a brief absence and found 115 pieces of mail awaiting me -- *every one of which was interesting.* There was simply *nothing left to skip.* I was captivated by all of it, and it was all there right at my fingertips, and I suddenly understood why certain unlucky souls rupture their wrist tendons at the keyboard.

An hour a day online is hard work, but I feel it's worth it; the stuff I get online is no longer soup, I'm getting real cubes of bouillon online, nuggets of information of intense interest that are unattainable anywhere else. But if this goes on I'll be beaten to a pulp; I'll be pelted into a coma with little croutons of incoming data. Somehow I'm going to have to find a way to make it stop. And it's not just dry data that is getting out of hand, but the socialization, the increasing demands online for my personal attention. As more and more people obtain my net-address, my replies must become briefer and briefer. The crush of the virtual crowd will eventually overwhelm me.

When that happens, I believe I'll have to take stern measures. I could simply ignore unsolicited mail. But that seems a stopgap measure. I'll probably have to drop my current online identity, and go back online incognito. It's a pretty problem in virtual etiquette: who will get my new address and who will have to be dropped? How will I convince people to maintain the secrecy of my new ID when the whole raison d'etre of the infobahn is instant access to anybody anywhere anytime?

I don't know yet. But if I keep at it I'm sure I'll learn something.

CATSCAN 14 "Memories of the Space Age"

Back in the heyday of the twentieth century, you couldn't keep a space hero out of network television or off the glossy pages of LIFE and LOOK. Nowadays LIFE and LOOK are as dead as Yuri Gagarin. Even the TV networks are assuming a rather sickly post-digital hue.

Space news out of the USSR -- a defunct entity itself looking very true to LIFE -- no longer kicks up nine-day Sputnik wonders, no longer appears in major monthlies. It's to be found instead in the workaday pages of IEEE SPECTRUM, a specialized magazine for electronics engineers.

In March 1995, longtime cosmonaut-watcher and NASA engineer James Oberg engaged in an extensive first-hand tour of the formerly Soviet launch sites and space complexes. Oberg is a recognized Soviet Space expert, somtime NOVA host on PBS, special consultant to the Sotheby's auction house for Soviet space memorabilia, and the author of the definitive tome RED STAR IN ORBIT (Random House 1981). His article appeared in the December 1995 issue of SPECTRUM.

For decades during the Cold War and Space Race, Oberg basically used the techniques of other career Kremlinologists -- rumors, defectors, body counts, overheard radio telemetry, May Day parade stands, and informed speculation.

But with the USSR defunct, Oberg simply breezed into the legendary Baikonur cosmodrome with camera, videocam and notebook in hand -- and what a story Oberg has to tell.

The Russian space centers haven't quite caught on to the unromantic fact that the century has left Khrushschev and Gagarin behind. The space facilities still boast a plethora of hammers and sickles, with the names and profiles of Lenin, Kalinin and other Old Bolsheviks. A certain nostalgia is only to be expected, as the space worker corps is littered with deadwood. Most of Russia's current top space experts are men in their 60s and 70s, a Brezhnev-style gerontocracy of rocket-science.

Many of these veteran space workers have simply outlived the Space Age. They first took up their sacred calling in the 50s and 60s, during the super-secret Sputnik and Vostok days, when technical knowledge was strictly compartmentalized and doled out on a need-to-know basis. Institutional senility is creeping in, as Oberg demonstrates with an anecdote. Last April the Mir space station cosmonauts began showing odd bits and pieces of lost hardware to ground control, asking what these gadgets were. Nobody on the

ground had a clue; they couldn't recognize the gear or even guess its purpose. The machines were still in orbit, but the paper trail was gone.

The Mir space station itself is ten years old. It has had at least one fire on board. No one has any idea how to "de-orbit" the decaying station safely, but the Russians hope that American money and American technology will keep the station running through the turn of the century. The Soviet tracking ships, which once kept a global communication net running for the sake of space exploration, have been sold, scrapped, or have ended up rotting in the harbors of the breakaway Ukraine. The Mir station can only speak to Russian ground control in ten- to-fifteen minute bursts, broken by up to ten hours of enforced silence as it flies over areas of the globe where Russia no longer has radio presence.

The USSR had two major launch centers, Baikonur Cosmodrome (aka Tyuratam) and the ultra-secret Plesetsk site. Official fraud claimed that Baikonur existed some 250 kilometers away from the actual site of launches; the launches from Plesetsk were denied entirely and officially proclaimed to be UFOs.

Like a lot of Russian government military and paramilitary sites, Plesetsk hasn't been paying its power bills lately, and has sometimes had its power shut off. But Plesetsk is a thriving haven compared to Baikonur, because Plesetsk is at least within the physical territory of the Russian Federation. Baikonur/Tyuratam isn't so lucky. The launch site of Soviet manned space missions is now entirely within the independent state of Kazakhstan.

The site, according to Oberg (and his many fine color photos strongly back him up) is in a state of advanced decay. The water is no longer safe to drink, and runs only intermittently. Fires, explosions, and toxic leaks are common. Tumbleweeds (an Asian species) roll unimpeded through the launchpads. Many civilian workers were left unpaid for months on end, and they simply fled. Drafted militia sent in to maintain order broke into rioting and looting through the abandoned, windowless apartment blocks. There haven't been any new-hires taken on to the space enterprise in at least five years.

With the near-collapse of security, thousands of Kazakh squatters have moved in to the launch center. They're still there, defying eviction by Russian and Kazakh military cops and armied militias. The cosmic capital's thickly-strewn junk-piles, broken fencing and abandoned industrial warehousing made it a positive boon for the Kazakh refugees, peasants fleeing the ecological disaster of the poisoned Aral Sea. The streets of Baikonur are choked with blowing dust from the distant Aral salt flats. The pesticide-thickened runoff from dammed rivers cannot keep the sea from dwindling.

Amazingly, the veteran Russian space workers, on average well over 50 years old, are still launching rockets from Tyuratam. Their work has been cut back by 90 percent or so, and they're begging passers-by for canned food and pencils, but the cosmic enterprise staggers on. The fading glamour of space-flight has become one Russia's few foreign cash-cows.

The Gagarin Cosmonaut Training Center ("Starry Town," northeast of Moscow) now sells space-cadet dude-ranch tours to passing Europeans and Yankees, for a thousand dollars a week. European Space Agency "guest cosmonauts," shot into orbit to man the Mir station, have brought the Russians about $85 million. The Chileans, Finns, and Greeks refused the lure of purchasing a home-grown space hero, but the cash-flush South Koreans might send up a TV reporter soon. And NASA has forked over some $400 million to keep its erstwhile rival active in "International Space Station" activities.

Western auction houses sell-off Soviet space vehicles and former top-secret documents for cash. Moscow still has 24 operational geostationary spacecraft, but three- fourths of them are beyond their design lifetime. The cosmonaut corps has had massive layoffs, many of them 40- to-50 year-old space heros who have been training for decades but will never have a chance to fly.

One could go on. One could, for instance, recommend the US Federal document "US-Russian Cooperation in Space" from the Office of Technology Assessment -- if the OTA itself had not been recently axed by the US Congress. The late twentieth-century US Congress is deeply unimpressed by shrieks of "Eureka" and "Excelsior" from the US scientific community -- what they want to hear are cries of "paydirt" and "competitive advantage." The Endless Frontier is out -- the Almighty Market is in.

It takes two to do a dramatic, awe-inspiring, cosmic tango. Sense of Wonder As a Foreign Policy no longer cuts any ice in Moscow or Washington. With the collapse of centrally-directed economics as a viable alternative to markets, the entire tenor of civil enterprise has changed, around the planet. It's no longer Free World Versus Communism, but McWorld Versus Jihad. Even the "Information Superhighway," the Clinton/Gore Administration's CyberSpace Race, seems to have no coherent role for any government to play. Bits of the old rhetoric are ritually deployed in Atari Democrat guise, but there is no Cyberspace NASA, no single national goal of landing in the virtual moon, nothing much for Clinton or Gore to do but gosh-wow and deplore the pornography.

There's no one to defeat. It's not surprising to see NASA and its military-industrial allies trying to pump billions in financial energy

into the flaccid corpse of the Russian space effort. Without rival knights of the spaceways, what exactly is the point of a manned space program of any kind? How long can Canaveral survive the death of Tyuratam? Do Apollo gantries rust any less completely than the dead Buran space shuttle?

The twentieth century is almost over now. Hindsight is increasingly possible. We can now recognize a certain kind of rhetoric as being intrinsically "twentieth- century." It sounds like this:

"A War to End All Wars. Wings Over the World. A Thousand-Year Reign. Science, the Endless Frontier. Energy Too Cheap To Meter. Miracle Drugs. Sexual Revolution. A Great Leap Forward. Storming the Cosmos."

The slogans seemed to emanate from every corner of the ideological compass at the time, but in retrospect they can be recognized as notes in a single piece of period music, a brassy modernist rant. The Soviet Union was born in the twentieth century and died in the twentieth century. It had the worst case of this syndrome ever known, maybe even the worst that will ever be possible. The USSR -- scientific, centralized, revolutionary, technocratic, blind to historical continuity, contemptuous of humanity, impossibly enthusiastic -- fell headlong for every 20th-century sucker's game imaginable: Marxism, aviation, electrification, mass industrialism, total warfare, atomic power, space flight.

The USSR longed for transcendance-through-machinery with a deeply religious, unquestioned and formally unquestionable fervor. Other twentieth-century societies shared this cast of mind, but it was the USSR which paid the worst, the most sordid, and the most degrading price for these aspirations. Toward their miserable end, the Soviets were even gasping for the chance to get up to speed on personal computers -- even as Chernobyl detonated. The consequences of that terrible act, like so many other 20th century enthusiasms, will easily outlast the 21st century.

It's "hubris clobbered by Nemesis," as Brian Aldiss likes to say. Science fiction was also born in the twentieth century, clutching a rocketship and wailing for the stars.

If we needed one shining example of a truly prescient 20th century science fiction writer -- our one stubborn dissident, denied his tithe of chrome Hugos, yet stubbornly clinging, despite all odds, to the light of reality -- then we need look no farther than J. G. Ballard. This great artist of our genre, with his uncanny surrealist insight, has made all the chest- pounding, slide-rule-waving, 60s go-go dancers of the Old Wave look like fossils. His science fiction is still entirely relevant, while theirs has become nostalgic gimmickry to be auctioned-off at Sotheby's as household 60s kitsch. I can't imagine Ballard taking much

pleasure in this vindication, or even bothering to notice; but surely he deserves some formal recognition for being so entirely right at the wrong time.

J. G. Ballard, author of "Memories of the Space Age," could have written James Oberg's article for him. In fact, he did. Repeatedly. Oberg's nonfiction article in an engineering magazine is the single most Ballardian piece of text never written by J G Ballard.

What this means to the rest of us will probably be decided by the first generation to come of age in the next century. Is there still real life in science fiction, or is the aging cadre of veterans merely going through the motions, hoping for miracles? What exactly is the role of "wonder" in a society where cosmic exploration is a matter of cash on the barrelhead? If there's hope, it surely lies in the young. Not much hope seems evident. But then again, where else has there ever been hope?